

IN THE UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION

ALFRED B. LEVINE,	§	
Plaintiff,	§	
	§	
v.	§	CIVIL ACTION NO. 2:09-CV-372
	§	
SAMSUNG TELECOMMUNICATIONS	§	
AMERICA, LLC, et al.,	§	
Defendants.	§	

CLAIM CONSTRUCTION ORDER

Before the Court is Plaintiff's Claim Construction Opening Brief. Dkt. No. 315. Also before the Court are Defendants' response and Plaintiff's reply. Dkt. Nos. 322 & 332.

Before the Court is Defendants' Motion for Partial Summary Judgment of Invalidity Based on Indefiniteness of Certain Claims of U.S. Patent Nos. 6,140,943 and 6,243,030. Dkt. No. 324. Also before the Court are Plaintiff's response, Defendants' reply, and Plaintiff's sur-reply. Dkt. Nos. 331, 340 & 345.

The Court held a claim construction hearing on January 25, 2012. *See* 1/25/2012 Minute Entry, Dkt. No. 357. In conjunction therewith, the Court heard oral arguments on the above-mentioned motion regarding indefiniteness. *Exxon Research & Eng'g Co. v. U.S.*, 265 F.3d 1371, 1376 (Fed. Cir. 2001) ("[D]etermination of claim indefiniteness is a legal conclusion that is drawn from the court's performance of its duty as the construer of patent claims.") (citation omitted). Having considered the briefing, oral arguments of counsel, and all relevant papers and pleadings, the Court finds that Defendants' motion for summary judgment should be DENIED, and the Court construes the disputed claim terms as set forth herein.

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I. BACKGROUND

Plaintiff asserts United States Patents No. 6,140,943 (“the ’943 Patent”) and 6,243,030 (“the ’030 Patent”) (collectively, the “patents-in-suit”), both titled “Electronic Wireless Navigation System.” *See* First Amended Complaint, Dkt. No. 38 at Exs. A & B. The ’030 Patent is a divisional of the ’943 Patent, so the patents-in-suit share a common written description. For convenience, all references to the written description herein shall be to the ’943 Patent. Trial is set for October 2012. *See* 9/8/2011 Scheduling Order, Dkt. No. 268.

The Abstracts of the patents-in-suit state:

An electronic navigation system using wirelessly tran[s]mitted video map images from one or more ground based tran[s]mitters together with wireless receivers having visual display available to travelers, for receiving and displaying the video map images. In one embodiment a cellular system is provided using video map images covering different zones or cells of a city or other community. GPS [(Global Positioning System)] reception is combined to additionally provide location, direction, and speed parameters on the received video maps. Transmitted video image information may also include names of streets, roads, as well as places of interest and to obtain service and assistance in emergencies. Interactive controls are provided as supplements to assist travelers in obtaining specific information as well as additional information.

Plaintiff asserts Claims 1, 3, 12, 13, 14, and 15 of the ’943 Patent and Claims 1, 2, 3, 8, 14, 15, and 21 of the ’030 Patent:

’943 Patent

1. In an electronic navigation system for wirelessly transmitting a plurality of enlarged video maps of different cellular zones of a geographical area, receivable by a wireless receiver associated with a traveler proceeding within said area,

said wireless transmitter generating additional video images including the names and relative locations of a plurality of streets within said cellular zone of said area,

said receiver having a visual display screen for displaying the video image of streets, and having means that responds to the traveler becoming proximate any of said streets to change the display to remove that street name from the visual display.

3. In an electronic navigation system having a ground based wireless transmitter for generating video images of navigation data, and a wireless receiver movable with a traveler within the effective range of said transmitter to receive and visibly display said video images,

said transmitter generating a video image containing a listing of plural different street-roads in the direction of travel of said traveler to receive and visibly display said video images, in the chronological order of their distance from the traveler,

whereby the traveler can more easily find a desired one of said street-roads using the receiver visual display.

12. In an electronic navigation system,

a mobile receiver accessible to a traveler and having a visual display screen for displaying a map containing street-road signs in the area of the location of the receiver,

detector means associated with the receiver for detecting the proximity of various street-roads, and in response to said detection actuating said receiver to change its visual display of the street-road signs,

thereby to inform the traveler of its location relative to said detected street-roads.

13. In the navigation system of claim 12,

said detection means actuating the receiver to eliminate the street-roads that have been detected, from the receiver display.

14. In the navigation system of claim 12,

said system being located along a highway, and the receiver visual display showing the progression of exits along said highway in the chronological order of their distance from the receiver,

and said detector means successively detecting the highway exits as they are reached to successively change the receiver visual display,

thereby to show the location of the receiver with respect to the exits along said highway.

15. A highway navigation system for identifying the highway exits to a driver proceeding along said highway comprising:

a wireless tran[s]mitter for transmitting a highway image whose content includes an identification of the different exits along the highway in advance of the driver proceeding along said highway,

a wireless receiver accessible to the driver and having a visual display, for receiving and displaying said highway image,

and detecting and control means for said receiver, for detecting the proximity of various exits along said highway to change the visual display to indicate the exits that have been detected.

'030 Patent

1. In an electronic navigation system,

wireless tran[s]mitter means generating a plurality of video maps covering different geographic zones of an extended area,

said transmitter means generating displaced wireless beams each directed to a different geographic zone corresponding to the video map of that zone,

and a wireless receiver having a visual display accessible to a traveler proceeding through said area, and responsive to the transmitted video map corresponding to the zone of its location, to display said video map on its screen.

2. In the navigation system of claim 1,

said transmitter means comprising a plurality of displaced transmitters, each generating a different one of said video maps corresponding to a different geographic zone.

3. In the navigation system of claim 1,

said tran[s]mitter means comprising a plurality of short range tran[s]mitters disposed [*sic*] at separated locations along a roadway, and each transmitter generating a video map covering its geographic zone.

8. In an electronic navigation system, covering a plurality of displaced zones within an extended geographic,

wireless tran[s]mission means generating a plurality of beams each containing a video map covering a different one of said zones,

a wireless receiver having a visual display, accessible to a traveler proceeding in said geographic area, said receiver selectively receiving and displaying said video maps,

selective control means for said receiver for enabling the traveler to manually select any desired one of said video maps for display on said receiver,

whereby a traveler proceeding within said geographic area can independ[e]ntly determine the zone of his location and can select that one of the video maps for display showing said zone.

14. In an electronic navigation system,

wireless tran[s]mitter means for generating a plurality of video maps each covering a different zone of an extended geographic area,

a wireless receiver having a memory for receiving and storing some of the video maps in the receiver memory,

said receiver having a visual display and having manually operated selection means for downloading any of the stored video maps to the receiver visual display,

thereby enabling a user to obtain a desired video map for display.

15. In the navigation system of claim 14,

said tran[s]mitter means tran[s]mitting the plurality of video maps throughout the geographic area.

21. A cellular navigation system subdividing an extended geographic region into a series of conti[]guous cellular zones,

a plurality of low power, limited range wireless transmitters, with said tran[s]mitters being displaced from one another and each located within a different cellular zone and located near a roadway,

each tran[s]mitter generating a video map covering its cellular zone,

a wireless receiver having a visual display for receiving the cellular video map of each zone when it is located within that cellular zone,

and control means for said receiver for erasing any previously displayed video map when the receiver enters into a different cellular zone.

II. LEGAL PRINCIPLES

A determination of patent infringement involves two steps: first, the patent claims are construed, and, second, the claims are compared to the allegedly infringing device. *Cybor Corp. v. FAS Techs., Inc.*, 138 F.3d 1448, 1455 (Fed. Cir. 1998) (en banc). Claim construction is a legal question for the courts. *Markman v. Westview Instruments, Inc.*, 517 U.S. 370, 391 (1996). The legal principles of claim construction were reexamined by the Court of Appeals for the Federal Circuit in *Phillips v. AWH Corp.*, 415 F.3d 1303 (Fed. Cir. 2005) (en banc). The Federal Circuit in *Phillips* expressly reaffirmed the principles of claim construction as set forth in *Markman v. Westview Instruments, Inc.*, 52 F.3d 967 (Fed. Cir. 1995) (en banc), *aff'd*, 517 U.S. 370 (1996), *Vitronics Corp. v. Conceptronic, Inc.*, 90 F.3d 1576 (Fed. Cir. 1996), and *Innova/Pure Water, Inc. v. Safari Water Filtration Sys., Inc.*, 381 F.3d 1111 (Fed. Cir. 2004).

The *Phillips* court also reaffirmed that “the prosecution history can often inform the meaning of the claim language by demonstrating how the inventor understood the invention and whether the inventor limited the invention in the course of prosecution, making the claim scope narrower than it would otherwise be.” 415 F.3d at 1317 (citing *Vitronics*, 90 F.3d at 1582-83). The prosecution history is a significant source for “evidence of how the PTO [(United States Patent and Trademark Office)] and the inventor understood the patent.” *Id.* The prosecution history is thus probative of the proper claim interpretation and may also contain a disclaimer of claim scope in some cases:

[A]n applicant’s argument that a prior art reference is distinguishable on a particular ground can serve as a disclaimer of claim scope even if the applicant distinguishes the reference on other grounds as well.” *Andersen Corp. v. Fiber Composites, LLC*, 474 F.3d 1361, 1374 (Fed. Cir. 2007). Moreover, regardless of whether the examiner agreed with [the patentee’s] arguments . . . , its statements still inform the proper construction of the term. *See Seachange Int’l, Inc. v. C-COR Inc.*, 413 F.3d 1361, 1374 (Fed. Cir. 2005) (“An applicant’s argument made during prosecution may lead to a disavowal of claim scope even if the Examiner did not rely on the argument.”); *Microsoft Corp. v. Multi-Tech Sys.*, 357 F.3d 1340, 1350 (Fed. Cir. 2004) (“We have stated on numerous occasions that a patentee’s statements during prosecution, whether relied on by the examiner or not, are relevant to claim interpretation.”).

Am. Piledriving Equip., Inc. v. Geoquip, Inc., 637 F.3d 1324, 1336 (Fed. Cir. 2011).

“[F]or prosecution disclaimer to attach, our precedent requires that the alleged disavowing actions or statements made during prosecution be both clear and unmistakable.”

Omega Eng’g, Inc. v. Raytek Corp., 334 F.3d 1314, 1325-26 (Fed. Cir. 2003); *accord Lazare Kaplan Int’l, Inc. v. Photoscribe Techs., Inc.*, 628 F.3d 1359, 1370 (Fed. Cir. 2010). The Federal Circuit has “declined to apply the doctrine of prosecution disclaimer where the alleged disavowal of claim scope is ambiguous.” *Omega Eng’g*, 334 F.3d at 1324.

Indefiniteness is a “legal conclusion that is drawn from the court’s performance of its duty as the construer of patent claims.” *Exxon*, 265 F.3d at 1376 (citation omitted). A finding of indefiniteness must overcome the statutory presumption of validity. *See* 35 U.S.C. § 282. That is, the “standard [for finding indefiniteness] is met where an accused infringer shows by clear and convincing evidence that a skilled artisan could not discern the boundaries of the claim based on the claim language, the specification, and the prosecution history, as well as her knowledge of the relevant art area.” *Halliburton Energy Servs., Inc. v. M-I LLC*, 514 F.3d 1244, 1249-50 (Fed. Cir. 2008).

Finally, in construing means-plus-function terms under § 112, ¶ 6, “we are careful to limit the corresponding structure to only that which is necessary to perform the recited function.” *Nomos Corp. v. Brainlab USA, Inc.*, 357 F.3d 1364, 1368 (Fed. Cir. 2004).

The Court construes the disputed terms in accordance with the doctrines of claim construction it has outlined here along with those it has enunciated in the past. *See Pioneer Corp. v. Samsung SDI Co.*, No. 2:07-CV-170, 2008 WL 4831319, at *1-*5 (E.D. Tex. Mar. 10, 2008).

III. DISCUSSION

On the morning of the Claim Construction Hearing on January 25, 2012, the Court provided the parties with its preliminary constructions for the disputed terms. *See* Dkt. No. 357. The Court then allowed the parties to meet and confer prior to the start of oral argument. The parties agreed with some of the preliminary constructions, and as to some others only one side agreed, as discussed herein.

The discussion of the disputed terms is organized in the same manner as the argument in Plaintiff's opening brief. *See* Dkt. No. 315. To the extent terms appears in more than one claim, the Court's construction of such terms shall apply to all of the asserted claims (of both patents-in-suit) in which such terms appear.

Finally, Defendants' Motion for Partial Summary Judgment of Invalidity Based on Indefiniteness of Certain Claims of U.S. Patent Nos. 6,140,943 and 6,243,030 (Dkt. No. 324) seeks summary judgment of invalidity based on indefiniteness as to Claims 1 and 12-15 of the '943 Patent and Claims 1-3, 8, 14-15, and 21 of the '030 Patent. The arguments set forth in Defendants' motion are discussed herein as to the particular terms at issue.

A. Claim 1 of the '943 Patent

(1) "wirelessly transmitting"

Plaintiff proposed this term means "sending data representative of an image or other information via a radio frequency signal by a land based transmitter in a cellular system to a wireless receiver." Dkt. No. 315 at 4.

Defendants proposed that this term need not be construed apart from construing the constituent term "transmitting." Dkt. No. 322 at 31.

At the January 25, 2012 hearing, the Court provided the parties with its preliminary construction of this term as: "No construction apart from construction of constituent term 'transmitting.'" Dkt. No. 357 at Ex. 1. All parties agreed to this construction, so the Court hereby adopts its preliminary construction.

(2) “wireless receiver” and “mobile receiver”

Plaintiff proposed these terms mean “mobile electronic device capable of receiving transmissions of data from a land based wireless transmitter and displaying a map or other information transmitted.” Dkt. No. 315 at 5.

Defendants proposed that these terms do not require construction. Dkt. No. 322 at 32.

At the January 25, 2012 hearing, the Court provided the parties with its preliminary construction of these terms as “electronic device capable of receiving transmissions of data” and “mobile electronic device capable of receiving transmissions of data,” respectively. Dkt. No. 357 at Ex. 1. All parties agreed to this construction, so the Court hereby adopts its preliminary construction.

(3) “video map(s)” and “video image(s)”

Plaintiff proposes these terms mean “a map/maps received by radio frequency signal that can be visually displayed on the display of a wireless receiving device” and “an image/images that can be displayed on the visual display of a wireless receiving device, such as a map or listing of streets, roads, highways or directions.” Dkt. No. 315 at 5.

Defendants propose that “video map” means “a map encoded as a video signal,” that “video maps” means “a plurality of maps each of which is encoded as a video signal,” that “video image” means “an image encoded as a video signal,” and that “video images” means “a plurality of images each of which is encoded as a video signal.” Dkt. No. 322 at 13.

At the January 25, 2012 hearing, the Court provided the parties with its preliminary construction of these terms as “a map/maps that can be visually displayed on the display of a wireless receiving device” and “an image/images that can be displayed on the visual display of a

wireless receiving device,” respectively. Dkt. No. 357 at Ex. 1. Plaintiff was agreeable to these constructions, but Defendants were not.

(a) The Parties’ Arguments

Plaintiff cites the ’943 Patent at 9:14-9:25-30 and 2:32-35 and also cites a dictionary definition of “video” as pertaining to signals. Dkt. No. 315 at 6. Plaintiff argues that Defendants’ proposal is flawed because “the receiver displays a map, not a signal.” *Id.*

Defendants respond that the word “video” in these terms must be given meaning and that “video” means something is encoded as a video signal. Dkt. No. 322 at 14. Defendants urge that Plaintiff’s proposal would render the term “video” superfluous. *Id.* Defendants also argue that Plaintiff’s reference to “radio frequency signal” is unsupported and contradicts the disclosure in the specification that “other wireless modes of transmission may be employed.” *Id.* at 15 (quoting ’943 Patent at 9:14-18) (emphasis omitted).

Plaintiff replies that there is no support for Defendants’ proposal that a map be “encoded” or “that the map be a video in the sense of a motion picture.” Dkt. No. 332 at 7.

At the January 25, 2012 hearing, Defendants urged that a “map” or “image” is inherently visual in nature and, as a result, the term “video” must carry meaning. Defendants submitted that “video” means moving pictures, such as television. Defendants also characterized Plaintiff’s dictionary definitions as being framed in the context of television, and Defendants also cited Plaintiff’s own deposition testimony stating that the term “video” came from television. Defendants also submitted that the recitation of an unmodified “map” in Claim 12 of the ’943 Patent is further evidence that the term “video” must carry meaning.

Plaintiff responded that nothing in the specification requires that “video” refer to motion pictures or television, and Plaintiff submits that the disclosure of video receivers is simply meant to contrast video with audio. ’943 Patent at 1:34-35. Plaintiff also responded that the reference in the written description to “coded” video refers to “fee paid reception,” not to the format of the maps or images. *Id.* at 6:56-58.

(b) Construction

First, Defendants propose that the “video maps” and “video images” at issue must be a “video signal,” specifically a television video signal. On one hand, “[c]laims must be interpreted with an eye toward giving effect to all terms in the claim.” *Becton, Dickinson & Co. v. Tyco Healthcare Group, LP*, 616 F.3d 1249, 1257 (Fed. Cir. 2010) (citation and internal quotation marks omitted). Indeed, the written description refers to “TV images” and using “portable TV receivers”:

[T]he individual components being used in the systems as described above are commercially available on the open market and presently in use for other purposes than as described in the present application. For example, portable hand held receivers having memory and visual display screen are widely in use for various communication purposes, as are portable TV receivers for displaying moving TV images.

’943 Patent at 9:18-25.

On the other hand, in the preferred embodiment “[t]he video map images are preferably transmitted *in digital form* from the zone transmitters and stored in the receiver memory 21 in digital form.” *Id.* at 9:26-28 (emphasis added). Thereafter, such images are downloaded and converted into analog signal form for application to the visual screen display 19 of such receivers.” *Id.* at 9:26-31. This disclosure of “digital form” and subsequent conversion to

“analog signal form” demonstrates that the “video map” is *not* necessarily “encoded as a video signal,” as Defendants would have it.

Defendants also rely on testimony by the inventor, Plaintiff, as follows:

Q So the video map transmitted is some kind of a video signal; right?

A Some kind of a --

Q Video signal.

A Yes, yeah, a wireless signal, yeah, like a television signal, transmits television pictures.

Q Right. It's a video signal because it's a video map.

A That's where the word "video" came from, television.

8/11/2011 Levine dep., Dkt. No. 322, Ex. H at 175:7-16. Plaintiff identified television as an example or a preferred embodiment, not a limitation. *Id.* (“*like a television signal*”) (emphasis added). Also, inventor testimony is generally of limited relevance, and here it does not outweigh the above-quoted intrinsic evidence. *Cordis Corp. v. Boston Scientific Corp.*, 561 F.3d 1319 (Fed. Cir. 2009) (“[I]nventor testimony as to the inventor’s subjective intent is irrelevant to the issue of claim construction”) (quoting *Howmedica Osteonics Corp. v. Wright Med. Tech., Inc.*, 540 F.3d 1337, 1346-47 (Fed. Cir. 2008)). On balance, the disputed terms are not limited to television video signals.

Second, Plaintiff proposes to limit “video map(s)” to maps “received by radio frequency signal,” but the use of radio frequencies is merely “preferred”:

Although it is preferred to use radio frequencies for the short range video map and related transmissions, and ultrasonic pulse transmissions for the remote control operations discussed above, it will be appreciated that other wireless modes of transmission may be employed.

’943 Patent at 9:14-18. Plaintiff’s proposal in this regard should therefore be rejected.

Third, the listing of examples in Plaintiff's proposal for "video image(s)" is unnecessary and potentially confusing. Such examples should therefore be omitted from the Court's construction.

The Court therefore construes **"video map(s)"** to mean **"map(s) that can be visually displayed on the display of a wireless receiving device"** and **"video image(s)"** to mean **"image(s) that can be displayed on the visual display of a wireless receiving device."**

(4) "cellular zones," "zone," "displaced zones," and "geographic zones"

Plaintiff proposes that no construction is necessary. Dkt. No. 315 at 6. Alternatively, Plaintiff proposes this term means "a small/limited subdivision of a geographic area containing a land based cellular transmitter that transmits signals to wireless receivers within that subdivision." *Id.*

Defendants propose that these terms mean "a predefined subdivision of a larger geographic area that is associated with a transmitter." Dkt. No. 322 at 8.

At the January 25, 2012 hearing, the Court provided the parties with its preliminary construction of this term as "subdivision(s) of a larger geographic area that is/are associated with a transmitter." Dkt. No. 357 at Ex. 1. Defendants were agreeable to this construction, but Plaintiff was not.

(a) The Parties' Arguments

Plaintiff argues that if the Court finds that construction is necessary, Plaintiff's proposal comports with the written description, which describes using "localized," "low power" transmitters. Dkt. No. 315 at 7 (citing '943 Patent at 1:27-35, 2:52-53 & 6:41-45). Plaintiff also

argues that “[t]here is nothing in the claim or the specification that requires a zone be ‘predefined,’” as Defendants propose. *Id.*

First, Defendants respond in their briefing that the subdivisions must be predefined because the specification discloses “zone maps” with defined cellular zones. Dkt. No. 322 at 9. Defendants submit that predefining the zones is essential because “it would be impossible to create and transmit a video map that covers a ‘zone’ unless the zone itself is known.” *Id.* at 10. Defendants also argue that for a traveler to know his zone and move from zone to zone, as disclosed in the specification, the zones must have fixed, predefined boundaries. *Id.*

Second, Defendants argue that each subdivision must be “associated with” a transmitter because “[t]he specification makes clear that each transmitter generates the local map for ‘its own zone,’ *i.e.*, the zone in which it is located.” *Id.* at 11 (citing ’943 Patent at 1:28-39, 2:52-55, 3:4-5 & 3:27-31). Defendants argue this must be true because otherwise a traveler communicating with a transmitter would receive a map for a different zone rather than a map for the zone in which the traveler is located. *Id.* at 12.

Third, Defendants argue that Plaintiff’s proposal to limit the term to a “land based” transmitter is unsupported and “has nothing to do with the definition of ‘zone.’” *Id.*

Plaintiff replies that Defendants’ additional limitations find no support in the claim language or in the specification, which discloses transmitting “wider area maps,” not just a map of the transmitter’s own zone. Dkt. No. 332 at 6.

At the January 25, 2012 hearing, Plaintiff stated he could agree with the Court’s preliminary construction (“subdivision(s) of a larger geographic area that is/are associated with a transmitter”) if it omitted the language “that is/are associated with a transmitter.” Plaintiff

argued that this language reads in a requirement that the transmitter can only transmit a map of its own zone. Plaintiff cited Figures 4 and 8 as illustrating that this limitation would be improper. Plaintiff also cited Figure 13 as illustrating that “zone” is a description of an area of land that is covered by the signal transmitted by a transmitter.

Defendants responded that they accept the Court’s rejection of the word “predefined,” which Defendants had included in their proposed construction, but Defendants urged that the “associated” language is necessary. Defendants explained that a transmitter must know its zone in order to generate and transmit maps of “its own zone” as disclosed in the written description. *See* ’943 Patent at 1:32-34, 2:53-55, 3:4-5 & 3:27-29.

(b) Construction

First, Plaintiff’s proposal that the transmitters must be “land based” lacks sufficient support. The recitation of “cellular” is insufficient to read in this limitation, and the disclosure of “ground based transmitters” in the written description suggests that a “transmitter” is not inherently ground based. *See, e.g.*, ’943 Patent at Abstract; *cf. Phillips*, 415 F.3d at 1314 (“[T]he claim in this case refers to ‘steel baffles,’ which strongly implies that the term ‘baffles’ does not inherently mean objects made of steel.”). Although the only disclosure of non-land-based communications devices is the mention of the Global Positioning System (“GPS”), which uses satellites, neither the claims nor the written description explicitly exclude the use of satellites or other non-land-based equipment.

Second, Defendants’ proposal of the word “predefined” is not supported. In other words, Defendants have not established that the subdivisions could not be defined dynamically. During the January 25, 2012 hearing, Defendants accepted the omission of “predefined.”

Third, the disclosure of wider area maps and city wide maps in the written description suggests that more than one map could be associated with a particular zone. '943 Patent at 2:25-29 & 2:40-44. That is, a zone could be shown on both a local area map and a wide area map. Defendants' proposal is thus unsupported by the claim language, which does not restrict a transmitter to transmitting only maps that correspond to the transmitter's own zone. Defendants' argument that a transmitter must *at a minimum* transmit a map of its own zone is likewise rejected. On balance, neither the claim language nor the written description justify a finding that the transmitter cannot transmit a local area map for a different zone.

Finally, Plaintiff's concerns about the language "that is/are associated with a transmitter" are moot in light of the findings in the preceding paragraph. The language is retained in the construction because of the usage in the claim and the written description of the term "cellular."

The Court therefore construes **"cellular zones," "zone," "displaced zones," and "geographic zones"** to mean **"subdivision(s) of a larger geographic area that is/are associated with a transmitter."**

(5) "a plurality of enlarged video maps of different cellular zones of a geographic area"

Plaintiff proposes that no construction is necessary. Dkt. No. 315 at 7. Alternatively, Plaintiff proposes this term means "[a] series of different maps containing various types of geographical information within and outside of each cellular zone that can be transmitted to and displayed on the display of the wireless receiving device." Dkt. No. 315 at 7.

Defendants propose that this term means "multiple enlarged video maps, each corresponding to a different cellular zone." Dkt. No. 322 at 12.

At the January 25, 2012 hearing, the Court provided the parties with its preliminary construction of this term as “a series of different maps, showing two or more cellular zones, that can be transmitted to, and displayed on the display of, the wireless receiving device” Dkt. No. 357 at Ex. 1. All parties agreed to this construction, so the Court hereby adopts its preliminary construction.

(6) “generating”

Plaintiff proposes this term means “[p]roducing a carrier wave that contains the map/image information that originated elsewhere.” Dkt. No. 315 at 9.

Defendants propose that this term means “originating.” Dkt. No. 322 at 5.

At the January 25, 2012 hearing, the Court provided the parties with its preliminary construction of this term as “transmitting.” Dkt. No. 357 at Ex. 1. Plaintiff was agreeable to this construction, but Defendants were not.

(a) The Parties’ Arguments

Plaintiff submits that the written description “provides the context to ‘use radio frequencies’ for the transmissions, preferably in digital form.” Dkt. No. 315 at 9. “These disclosures support the common sense interpretation that generating an image is simply producing a carrier wave containing information related to that image.” *Id.* Plaintiff also notes the disclosure of embodiments in which maps are stored in a central facility and transmitted to zone transmitters, which in turn transmit the maps to receivers. *Id.*

Defendants respond that Plaintiff’s proposed construction contradicts the claim language and “equates ‘generating’ with ‘transmitting.’” Dkt. No. 322 at 5. Defendants note in this regard that Claim 14 of the ’030 Patent recites “generating” whereas Claim 15, which depends from

Claim 14, recites that the transmitter “transmits” the generated maps. *Id.* at 6. Defendants also cite prosecution history in which the examiner notes that the claims called for “wireless transmitter means *generating* a plurality of video maps.” *Id.* Defendants submit that the term “generating” is not defined by the specification and should therefore be given its “plain and ordinary meaning.” *Id.* at 5. Defendants cite dictionary definitions of “generating” as “originating.” *Id.* at 7. As to Plaintiff’s proposal, Defendants argue that Plaintiff’s proposal is unsupported because “[n]owhere does the specification of the Asserted Patents call for ‘producing a carrier wave.’” *Id.* Finally, Defendants urge that although the specification discloses that maps may be produced “elsewhere,” “[i]t is well settled that the claims of a patent do not have to be construed so that they read on every disclosed embodiment.” *Id.* at 8.

Plaintiff replies that Defendants “place too much reliance on a dictionary definition” and not enough on the specification, which “use[s] the word ‘originate’ to describe the initial creation of the map prior to the map’s distribution to a central mass storage facility and cellular transmitter.” Dkt. No. 332 at 4 (citing ’943 Patent at 8:13-25). Plaintiff urges that a transmitter does not create a map but rather merely “generates and then transmits an electrical signal.” *Id.* at 4. Plaintiff concludes that “one skilled in the art would understand that a transmitter produces a signal and not an object such as a map.” *Id.* at 5.

At the January 25, 2012 hearing, Defendants argued claim differentiation, urging that “generating” cannot mean “transmitting” because Claim 14 of the ’030 Patent recites a “wireless tran[s]mitter means for *generating* a plurality of video maps” and then Claim 15, which depends from Claim 14, recites “said tran[s]mitter means *tran[s]mitting* the plurality of video maps throughout the geographic area.” Defendants also cited disclosure in the written

description that “video image pages . . . may be rapidly *generated* in sequence at each zone,” that “maps and data are generated by local ground based transmitters 10 at convenient street locations,” and that “[t]he series of maps and other video images being transmitted within each city 120, 121 may be produced locally, or elsewhere.” ’943 Patent at 3:24-25, 3:45-49 & 42-44.

Plaintiff responded that its cited dictionary definition of “radio transmitter” is relevant to the construction of “generating” because the claimed “generating” is being done by a transmitter. Plaintiff also emphasized that maps may be produced locally at the transmitter *or elsewhere*.

(b) Construction

The written description discloses “use of radio frequencies” to convey maps from a transmitter to a receiver. ’943 Patent at 9:14-18. This is disclosed as merely a preferred embodiment, however, and not as a limitation. *See id.* Plaintiff’s proposal in this regard should therefore be rejected.

Mainly the parties dispute whether “generating” means that a transmitter must itself create a map. The written description discloses that maps can be generated by something other than the transmitter:

[E]ach of the different city zone maps, and other maps, can be changed, amended or updated at the central mass storage facility 107 and then transmitted as needed to each of the zone transmitters 114, 115, 116, and others, permitting the maps and related information being provided to travelers to be maintained in current most useful form.

* * *

Thus as described above with reference to FIG. 13 the local zone maps, and changes thereto may be produced at a single location, and conveyed by cable or long distance wireless transmission to central storage facilities 107 in each city, town, or community. From each such central city facility such maps and changes may be then transmitted to the zone transmitter 56 (FIG. 9), or the series of zone transmitters located in the different zones of the city (FIG. 1) where such map(s) are retransmitted to the receiver(s) of the travelers (FIG. 3).

* * *

The series of maps and other video images being transmitted within each city 120, 121 may be produced locally, or elsewhere, and made available on the INTERNET international network 127. Each of the local cities are, in turn coupled to the INTERNET network using intermediate networks, by cable or wireless transmission, as shown, to provide the city transmitters with the desired ones of the local zone maps, and other video images, for retransmission to such cities.

'943 Patent at 8:1-7, 8:45-54 & 9:43-50. Further, the first paragraph of the written description is inconsistent with Defendants' proposal to construe "generating" to mean "originating":

This invention generally relates to, electronic navigation systems, and more particularly to such systems using *wirelessly generated* video map images.

'943 Patent at 1:4-6 (emphasis added). Defendants' proposed construction would result in reading this passage to refer to "wirelessly originated" video maps, the meaning of which would be unclear and which would not comport with the context of the patents as a whole. Defendants' proposal should therefore be rejected.

Finally, Defendants have cited the Examiner's comments in allowing the application that issued as the '030 Patent, wherein the Examiner cited the "wireless transmitter means generating a plurality of video maps" as being unlike the prior art. *See* Dkt. No. 322 at 6. The Examiner did not, however, explain the meaning of "generating" or isolate that term as a point of novelty:

Many references in the art disclose the navigation system for vehicle which comprises a fixed ground based [*sic*] in form of a base station 22 which is wirelessly communicated with navigation device 24 and position determining system 26 via link 42 and 44, a [*sic*] numerous base stations which are located at plurality of geographic locations thereby navigation device 24 could remain in communication with at least one base station even when moved through a plurality of geographic locations, a wireless receiver in form of a transceiver 28, a visual display 32, a base station which includes a transmitter, and an in-vehicle receiver, such as found in Ellis et al. [U.S. Pat. 5,699,255] and Rosenquist [U.S. Pat. 5,864,305]. But no reference in the art discloses the electronic navigation system comprising *wireless transmitter means generating a plurality of video*

maps covering different geographic zones of an extended area, said transmitter means generating displaced wireless beams each directed to a different geographic zone corresponding to the video map of that zone and a wireless receiver having a visual display accessible to a traveler proceeding through said area, and responsible [*sic*] to the transmitted video map corresponding to the zone of its location, to display said video map on its screen.

Dkt. No. 322 at Ex. E at DEFS 000543 (emphasis added). This prosecution history therefore does not support Defendants' argument that the Examiner distinguished between "generating" and "transmitting." *See* Dkt. No. 322 at 6.

As to the proper construction, the Summary of the Invention discloses:

According to the invention there is provided a system for wirelessly *transmitting* video maps and other information *from localized ground transmitters*, to provide enlarged, detailed maps of different zones of a city, town, village, or other area, to travelers.

'943 Patent at 1:28-32 (emphasis added). The patents do not explain why the term "generating" is then used in some of the claims, and the written description provides no express definition for "generating" as opposed to "transmitting." "Generating" appears in the written description only once:

Thus, in this preferred embodiment there is provided a cellular system of dispersed video image transmitters 10, each *generating* enlarged video maps and other data pertaining to its own zone of the city or area. A traveler proceeding within the city receives each local zone map by video transmission from the ground transmitter 10 or transmitters in that zone

'943 Patent at 2:52-58 (emphasis added). Further, the written description uses the word "generate" in the context of wireless communication:

As shown in FIG. 9, a single higher power, longer range transmitter-antenna 56 is provided to *generate* an omnidirectional beam 58 covering the entire city 57 or extended area."

Id. at 4:54-57 (emphasis added).

The extrinsic technical dictionary definition submitted by Plaintiff is additional evidence that a person of ordinary skill in the art would understand the term “generating” in the context of a transmitter to refer to “transmitting”:

radio transmitter [ELECTR] The equipment used for generating and amplifying a radio-frequency carrier signal, modulating the carrier signal with intelligence, and feeding the modulated carrier to an antenna for radiation into space as electromagnetic waves. Also known as radio set; transmitter.

McGraw-Hill Dictionary of Scientific & Technical Terms 1740 (6th ed. 2003), Dkt. No. 315, App’x at A000261. Finally, Plaintiff’s cited dictionary definitions of “generate” and “generator,” as well as Defendants’ own cited dictionary definitions, are broad and are *not* inconsistent with such a reading. *See id.* at A000269-70; Dkt. No. 322, Ex. F at DEFS002294 & Ex. G at DEFS002296.

On balance, at least as far as the asserted claims are concerned, the patents-in-suit use “generating” to mean “transmitting.” The Court therefore construes “**generating**” to mean “**transmitting**.”

(7) “said receiver having a visual display for displaying the video images of streets, and having means that responds to the traveler becoming proximate [to] any of said streets to change the display to remove that street name from the visual display”

Plaintiff argues this term is not a means-plus-function term subject to 35 U.S.C. § 112, ¶ 6. Dkt. No. 315 at 10. Alternatively, Plaintiff proposes that the function is to “change the display to remove that street name from the visual display,” and that the corresponding structure “includes a wireless receiver, an image selector circuit, image selector processor or keypad.” *Id.*

Defendants propose that this is a means-plus-function term, that the function is “responding to the detection of the traveler becoming proximate to any of the actual streets by

removing that street name from the video image on the visual display,” and that the corresponding structure is “the ultrasonic generator 84, detector transducer 82, retroreflector 79, converter 81, and image selector circuit/processor 24 described in 5:37-59, 8:61-97, and Figs. 1, 3, 7 of the ’943 Patent.” Dkt. No. 310, Ex. A at 12; Dkt. No. 322 at 16. Alternatively, Defendants propose that the detector “means” is “a sensing device that produces an electrical signal in response to approaching an actual street.” Dkt. No. 22 at 23.

At the January 25, 2012 hearing, the Court provided the parties with its preliminary construction of this term as: “This is a means plus function term. This term is not indefinite. The corresponding structure includes the ultrasonic generator 84, detector transducer 82, retroreflector 79, converter 81, and image selector circuit/processor 24.” Dkt. No. 357 at Ex. 1. Defendants were agreeable to this construction, but Plaintiff was not.

(a) The Parties’ Arguments

Plaintiff argues that “[a]lthough the word ‘means’ appears in this limitation, there is sufficient structure in this limitation (i.e., the receiver) for performing the described function to overcome the presumption of § 112, ¶ 6.” Dkt. No. 315 at 10. Plaintiff argues that Defendants’ proposal is flawed because proximity of the traveler determines when the function is performed and is not part of the function itself. *Id.* at 11. Plaintiff also argues that “detection,” “video image,” and “actual” are not part of the disputed term. *Id.* at 11-12.

Defendants respond that Plaintiff construes this term “in an attempt to improperly broaden his patents to encompass Global Positioning Satellite (‘GPS’) circuitry, a completely different technology from that disclosed in the asserted patents.” Dkt. No. 322 at 16.

Defendants argue that the means-plus-function presumption should be especially strong in this case because the named inventor, Plaintiff, is also the patent attorney who prosecuted the patents-in-suit and, at the time of filing, Plaintiff had been prosecuting patents for over 40 years. Dkt. No. 322 at 16. At the January 25, 2012 hearing, Defendants also noted that Plaintiff once worked as a patent examiner at the PTO. Defendants also argue that the “receiver” structure relied upon by Plaintiff does not “change the visual display” as required by the function because that structure was present in prior art that Plaintiff distinguished during prosecution. *Id.* at 17.

As to the function, Defendants cite claim language and prosecution history to argue that the function includes detecting the proximity of an actual street or highway exit and changing the visual display in response thereto. *Id.* at 19.

As to the corresponding structure, Defendants urge that because the function requires detecting an actual street or highway exit, an odometer or GPS receiver is insufficient. *Id.* at 21. Instead, the patents-in-suit disclose detecting a street or highway exit by receiving a reflected pulse from a retroreflector located at that street or highway exit. *Id.* (citing ’943 Patent at 8:61-9:7). GPS, by contrast, merely determines a receiver’s coordinates. Defendants submit that the disclosure of GPS in the specification “is merely permissive . . . [and is] not specifically linked to performing the claimed function of the ‘detector means.’” *Id.* at 22. Finally, Defendants argue that “Plaintiff clearly disclaimed GPS from serving as the ‘detector means’ during prosecution” because the “detector means” was added to overcome the Ellis reference, United States Patent No. 5,699,255, which disclosed using GPS as part of a navigation system. *Id.*

As to Defendants’ alternative proposal, Defendants cite dictionary definitions for “proximity detector.” Dkt. No. 22 at 23.

Finally, Defendants have filed a motion for summary judgment arguing that the “detector means” terms in Claims 1, 12-13, 14, and 15 of the ’943 Patent render those claims invalid as indefinite because the specification fails to disclose sufficient structure. Dkt. No. 324 at 6. Defendants submit that “the only structure associated with the detecting function is signal detector circuit 18 as shown in Fig. 3 of the ’943 patent.” *Id.* at 7 (footnote omitted). Defendants argue that without any disclosure of software or an algorithm, the patents are merely claiming the function itself, however performed, which is impermissible. *Id.* at 7-8 (citing *In re Katz Interactive Call Processing Patent Litig.*, 639 F.3d 1303, 1315 (Fed. Cir. 2011)). Defendants likewise argue that the specification fails to disclose any algorithm for the “changing the visual display” aspect of the claimed function. *Id.* at 10-11 (citing, *e.g.*, *In re Aoyama*, 656 F.3d 1293 (Fed. Cir. 2011) & *WMS Gaming, Inc. v. Int’l Game Tech.*, 184 F.3d 1339, 1349 (Fed. Cir. 1999)).

Plaintiff responds that Defendants cite no case law for their proposition that the means-plus-function presumption is heightened where the named inventor was also the prosecuting attorney. Dkt. No. 332 at 8. Plaintiff also argues that by grouping this term with other “so-called detector means” terms, Defendants are ignoring significant differences between the claims. *Id.* Plaintiff also argues that the prosecution history relied upon by Defendants applies only to Claims 12-15 of the ’953 Patent, not Claim 1. *Id.* at 10. As to the corresponding structure, Plaintiff reiterates that the ultrasonic generator and retroreflector are unnecessary for the detecting function and are not part of the receiver. *Id.* Alternatively, Plaintiff argues that if such structures are included, then a transmitter should be included as an alternative, as disclosed by

the written description. *Id.* at 11. Finally, Plaintiff argues that “it is clear that the specification discloses GPS as structure” that would be “an alternative to using a retroreflector.” *Id.* at 11-12.

As to definiteness, Plaintiff responds by reiterating that the so-called “detector means” terms are not means-plus-function terms. Dkt. No. 331 at 13. Plaintiff argues that “‘detector’ carries sufficient structure by itself” and is “well-understood in the art.” *Id.* at 13-14. Plaintiff also argues that because “[a] cellular phone receiver is not a general purpose computer,” an algorithm is not required. *Id.* at 11 & 15-16.

Defendants reply that Plaintiff “did not accuse a cellular phone alone of infringing” but rather has “accused cellular phones *preloaded with navigation software*.” Dkt. No. 340 at 1. Defendants also submit that Plaintiff cites authorities for the proposition that an algorithm is required when the only disclosed structure is a general purpose computer. *Id.* at 6. Defendants argue that these authorities do *not* hold, as Plaintiff would have it, that “an algorithm is required *only* when the disclosed structure is a general purpose computer and nothing more.” *Id.* Defendants further reiterate that the specification fails to discuss any detection of streets, any structure for changing the visual display, or any explanation of how the image selector processor could change the visual display. *Id.* at 9.

In sur-reply, Plaintiff reiterates his responsive arguments and urges that “it is the *receiver* that changes the display, *not* the detector.” Dkt. No. 345 at 2. In other words, “the function of the detector is to detect the proximity of streets to the traveler and then *actuate the receiver* which changes the visual display.” *Id.* at 6. Plaintiff concludes that “[t]he detector does *not* therefore need to include any structure to change the visual display.” *Id.* For example, Plaintiff argues, “[t]he GPS receiver disclosed in the ‘943 and ‘030 patents can inform a traveler his or her

proximity to streets, such as when the traveler is nearly at a street location.” *Id.* at 7 (citing ’943 Patent at 8:60-9:13); *see also id.* at 8-9 (same). Plaintiff also urges that “here where structure other than a general purpose computer or microprocessor is disclosed then an algorithm need not be disclosed.” *Id.* at 5. Plaintiff argues that “Defendants have failed to identify any specific function recited by the claims . . . that would require a general purpose computer with special programming.” *Id.* at 6.

At the January 25, 2012 hearing, Plaintiff argued that whereas Defendants are proposing that the function includes both “detecting” and “removing,” the claim only recites “removing.” Defendants responded that the “removing” recited by the claim only occurs upon detecting the proximity of a street.

Alternatively, Plaintiff proposed that if the function includes “detecting,” then any one of the following three structures can be corresponding structure for detecting: (1) “[a] conventional GPS receiver circuit 110” (’943 Patent at 9:8-13); (2) a retroreflector (*id.* at 5:43-49); or (3) a “video image signal transmitter[.]” (*id.* at 6:24-28). Plaintiff also argued that corresponding structure for the “removing” function can be *either* the image selector circuit (for automatic removal) *or* the keypad/keyboard (for manual removal). *Id.* at 4:19, 5:33 & 5:50-54.

As to indefiniteness, Defendants reiterated the arguments contained in their motion for summary judgment, and Defendants also cited *Dealertrack, Inc. v. Huber*, No. 2009-1566, -1588, --- F.3d ----, 2012 WL 164439 (Fed. Cir. Jan. 20, 2012), handed down a few days before this Court’s January 25, 2012 hearing. Plaintiff responded by citing *Typhoon Touch Technologies, Inc. v. Dell, Inc.*, 659 F.3d 1376, 1385 (Fed. Cir. 2011), handed down near the close of claim construction briefing in the above-captioned case.

(b) Construction

If a claim element contains the word “means” and recites a function, there is a presumption that the claim is in means-plus-function form. That presumption can be rebutted, however, if the claim also recites sufficient structure to perform the claimed function.

Becton, 616 F.3d at 1262 (citation and internal quotation marks omitted).

On balance, Plaintiff has failed to rebut the means-plus-function presumption, so this term is construed as a means-plus-function term. In reaching this conclusion, the Court has afforded *no* weight to Defendants’ argument that Plaintiff’s experience as a patent prosecutor should heighten the presumption.

The parties disagree on the function. Defendants correctly submit that the “removing” portion of the function is dependent on a “detecting” operation that is necessarily implied by the “responding” portion of the function. Thus, the function for this means-plus-function term is “detecting the traveler becoming proximate to any of said streets to change the display to remove that street name from the visual display.”

Next, the written description discloses sufficient corresponding structure:

[U]sing a retroreflector 79 located at each street corner, as shown in FIG. 7, and using re[f]lected pulse signals to perform selective erasure of the street names from the video display 19 as each street is passed. Referring to FIG. 3, the traveler's receiver may be provided with an ultrasonic generator 84 and a detector transducer 82. The generator 84 repetitively generates ultrasonic pulses, and the reflection of any of such pulses by a corner retroreflector 79 (FIG. 7) is received by the receiver to selectively erase the topmost street name from the video page listing of the streets. Referring to FIG. 3, the reflected ultrasonic pulses are directed to the antenna 82, and converted into electrical control signals by converter 81 and applied to the image selector circuit 24 to selectively erase the topmost street name from the video page (FIG. 6).

'943 Patent at 5:40-54. The written description also discloses using a “video image signal transmitter[]” instead of a retroreflector:

As an altern[at]ive to providing retroreflectors near each exit ramp, video image signal transmitters, as described above, may be also provided at or near the different exits to perform the functions described above as well as providing additional information.

Id. at 6:24-28.

The written description also discloses a “GPS receiver circuit 110 . . . to receive the GPS satellite signals, and process such signals to derive the location, speed, and other information pertaining to the movements of the Traveler.” ’943 Patent at 9:8-12. This GPS information can be “superimposed” or “display[ed]” on the video maps. ’943 Patent at 3:53-57 & 9:8-13; *see also id.* at Abstract (“GPS reception is combined to additionally provide location, direction, and speed parameters on the received video maps.”). These disclosures of “superimpos[ing],” “display[ing],” and “combin[ing]” do *not* support Plaintiff’s proposal that GPS can be used as part of a detector means for *detecting* proximity to a street. *Id.*

As further corroboration, such a reading is consistent with prosecution history explaining that some of the asserted claims with “detector means” terms “call for remote detection of *the actual street-roads*, or exits along a highway, to actuate the navigation receiver and change the visual display according to the detections.” 3/1/2000 Amendment, Dkt. No. 322, Ex. D at DEFS000297 (emphasis added).

Thus, the only disclosed structures for the detecting function are: (1) components that enable the device to emit an ultrasonic pulse and detect such a pulse reflected by a retroreflector mounted on a street sign or similar object (*id.* at 5:39-59); or (2) a “video image signal

transmitter[]” (*id.* at 6:24-28). *See Dealertrack*, 2012 WL 164439 at *13 (“[T]he written description may disclose distinct and alternative structures for performing the claimed function.”) (quoting *Creo Prods., Inc. v. Presstek, Inc.*, 305 F.3d 1337, 1345 (Fed. Cir. 2002)).

As to Defendants’ arguments regarding the purported lack of software or algorithms in the specification, Defendants properly summarize the general prohibition against “functional claiming” set forth in *Aristocrat* and various other cases cited by Defendants in their briefing:

In cases involving a computer-implemented invention in which the inventor has invoked means-plus-function claiming, this court has consistently required that the structure disclosed in the specification be more than simply a general purpose computer or microprocessor. The point of the requirement that the patentee disclose particular structure in the specification and that the scope of the patent claims be limited to that structure and its equivalents is to avoid pure functional claiming.

Aristocrat Techs. Australia Pty Ltd. v. Int’l Game Tech., 521 F.3d 1328, 1333 (Fed. Cir. 2008).

Defendants therefore urge in their motion for partial summary judgment that some algorithm or software must also be disclosed. The cases relied upon by Defendants, however, are clearer cases of relying on disclosure of a general purpose computer than is the above-captioned case. In *Aristocrat*, the court found that “[t]h[e] description goes no farther than saying that the claimed functions are performed by a general purpose computer.” *Id.* at 1334. As another example, the *Dealertrack* case cited by Defendants at the January 25, 2012 hearing involved the limitation of a “central processing means” and, in dependent claims, the added function of “tracking pending credit applications.” 2012 WL 164439 at *14. The court found the claims indefinite because the specification disclosed “no algorithm pursuant to which the ‘central processing means’ could perform the claimed function of ‘tracking.’” *Id.*

In the present case, by contrast, special-purpose hardware is disclosed, such as the video image signal transmitter or, alternatively, the ultrasonic generator 84, detector transducer 82, retroreflector 79, converter 81, as well as the image selector circuit/processor 24. As a result, no algorithm is required. *See Key Energy Servs., Inc. v. C.C. Forbes, LLC*, No. 2:08-CV-346, 2010 WL 2698507, at *13 (E.D. Tex. July 7, 2010).

Alternatively, if an algorithm is found to be required, then the written description discloses sufficient algorithms for the function of “detecting the traveler becoming proximate to any of said streets to change the display to remove that street name from the visual display”:

Thus the traveler's receiver continual [*sic*] displays all of the streets and roads in each zone as the traveler proceeds, and enables the traveler to find any desired street or road despite difficulties in seeing and reading street and road signs.

As each succeeding street or road is passed, and the traveler proceeds toward the next, the previous street name may be erased from the top of the video list, leaving the remaining street names on the display. This selective erasure may be performed manually by the traveler's use of the manually actuatable keyboard 24, shown in FIG. 3. Alternatively, the traveler need only keep track of the streets being passed by comparison with the listing of the street names on the receiver display 19 (FIG. 6).

Automatic erasure of the street names on the listing of FIG. 6 may also be performed as the traveler passes each street. In one embodiment, such automatic erasure may be performed using a retroreflector 79 located at each street corner, as shown in FIG. 7, and using re[f]lected pulse signals to perform selective erasure of the street names from the video display 19 as each street is passed. Referring to FIG. 3, the traveler's receiver may be provided with an ultrasonic generator 84 and a detector transducer 82. The generator 84 repetitively generates ultrasonic pulses, and the reflection of any of such pulses by a corner retroreflector 79 (FIG. 7) is received by the receiver to selectively erase the topmost street name from the video page listing of the streets. Referring to FIG. 3, the reflected ultrasonic pulses are directed to the antenna 82, and converted into electrical control signals by converter 81 and applied to the image selector circuit 24 to selectively erase the topmost street name from the video page (FIG. 6). To prevent any spuriously received ultrasonic pulses from erroneously erasing the video display (FIG. 6), the retroreflectors 79 of FIG. 7, may be specially configured to reflect a

predetermined waveform shape, and the circuit of FIG. 3 may be suitably adapted to respond only to that special waveform shape.

* * *

In the embodiment shown in FIG. 6, the image selector circuit 24 is also configured to respond to each received retroreflected ultrasonic pulse (from retroreflector 79—FIG. 7) to edit the video display listing of the streets by deleting each street name from such list as that street is passed by the Traveler.

'943 Patent at 5:23-59 & 9:3-8. These disclosures “in prose” are adequate. *Typhoon Touch*, 659 F.3d at 1385 (“Precedent and practice permit a patentee to express that procedural algorithm in any understandable terms including as a mathematical formula, in prose, or as a flow chart, or in any other manner that provides sufficient structure.”) (citation and internal quotation marks omitted). Because the Court finds that disclosure of such algorithms is not necessary but is merely an alternative basis for finding the claim not indefinite, the Court does not include the algorithms in its construction.

In sum, Defendants have *not* met their burden to establish by “clear and convincing evidence” that the claim is invalid as indefinite. *Halliburton*, 514 F.3d at 1249-50.

The corresponding structure therefore includes either: (1) the ultrasonic generator 84, detector transducer 82, retroreflector 79, converter 81, and image selector circuit/processor 24; or (2) the video image signal transmitter and image selector circuit/processor 24.

B. Claim 3 of the '943 Patent

(1) “navigation data”

Plaintiff proposes this term means “data transmitted by the land based wireless transmitter relating to a wireless receiver user’s location, destination, a map of the area, routing information, traffic information, and/or any other information relating to the geography of an area.” Dkt. No. 315 at 12.

Defendants propose that this term does not require construction. Dkt. No. 322 at 32.

At the January 25, 2012 hearing, the Court provided the parties with its preliminary construction of this term as “data transmitted by the wireless transmitter relating to a map of an area associated with the traveler.” Dkt. No. 357 at Ex. 1. Plaintiff was agreeable to this construction, but Defendants were not.

(a) The Parties’ Arguments

Plaintiff urges that the transmitter is land based and that the navigation data “includes a listing of streets and roads.” Dkt. No. 315 at 13. Plaintiff cites the ’943 Patent at 2:26-29, 2:37-46, 2:60-3:5, 5:10-13, 5:62-66, 6:2-5 and Figures 4, 5, 6 and 8. *Id.*

Defendants respond that “Plaintiff improperly piles into his construction of ‘navigation data’ unnecessary structure, the origins of such data, as well as examples of information that may or may not comprise navigation data.” Dkt. No. 322 at 32-33. Defendants also note that the preamble already recites a “ground based wireless transmitter” such that Plaintiff’s proposed “land based” language is redundant. *Id.* Defendants further argue that the inventor did not act as his own lexicographer as to this term and that “[e]ach of the citations relied upon by Plaintiff simply recites forms of information than can be transmitted by the wireless transmitters.” *Id.* at 33.

At the January 25, 2012 hearing, Defendants urged that this term does not require construction because it appears only in the preamble and is not necessary to breathe life and meaning into the claim. Plaintiff declined to present any oral argument on this term.

(b) *Construction*

On one hand, Defendants are correct that the preamble is generally not a limitation. *See, e.g., Catalina Mktg. Int'l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002) (“[A] preamble is not limiting where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention.”) (citation and internal quotation marks omitted). On the other hand, Defendants have not cited any authority for the proposition that where a preamble is not limiting, the Court must refrain from construing terms therein. *See* Dkt. No. 322 at 32-33. Moreover, Plaintiff’s proposed construction demonstrates that the parties have a “fundamental dispute regarding the scope of a claim term,” so the Court has a duty to resolve the dispute. *O2 Micro Int’l Ltd. v. Beyond Innovation Tech. Co., Ltd.*, 521 F.3d 1351, 1362-63 (Fed. Cir. 2008).

As discussed above regarding the “zone” terms in Claim 1 of the ’943 Patent, above, Plaintiff has failed to justify requiring that the transmitter be “land based.” Also, Plaintiff’s proposal as to “location, destination,” “routing information, traffic information, and/or any other information relating to the geography of an area” is overbroad, unbounded, and at best merely characterizes a preferred embodiment. *See, e.g., ’943 Patent* at 4:6-10.

The Court therefore construes “**navigation data**” to mean “**data transmitted by the wireless transmitter relating to a map of an area associated with the traveler.**”

(2) “said transmitter generating a video image containing a listing of plural different street-roads in the direction of travel of said traveler to receive and visibly display said video images, in the chronological order of their distance from the traveler”

Plaintiff proposes that no construction is necessary. Dkt. No. 315 at 13. Alternatively, Plaintiff proposes this term means “each transmitter transmits data to be received and visibly

displayed by the receiver, such data containing a listing of the streets/roads in the direction of the traveler's travel in the sequence in which a traveler would encounter the streets/roads.” *Id.*

Defendants originally submitted that this term is indefinite. Dkt. No. 310, Ex. A at 7.

Plaintiff argues that this term is not indefinite because it “is easily understood” and is supported by the specification. Dkt. No. 315 at 13-14 (citing ’943 Patent at 5:9-16 & Fig. 6).

The parties present no further briefing on this term, and it is not addressed by the parties’ Patent Rule 4-5(d) Joint Claim Chart. *See* Dkt. No. 355-1 at 25.

At the January 25, 2012 hearing, the Court provided the parties with its preliminary construction of this term as: “Defendants present no argument, so this term is not construed.” Dkt. No. 357 at Ex. 1. All parties agreed that this term need not be construed. The Court therefore does not construe this term.

(3) “whereby the traveler can more easily find a desired one of said street-roads using the receiver visual display”

Plaintiff proposes that no construction is necessary. Dkt. No. 315 at 14. Alternatively, Plaintiff proposes this term means “[b]y displaying the video images, the system facilitates a traveler in locating a particular street/road.” *Id.*

Defendants originally submitted that this term is indefinite. Dkt. No. 310, Ex. A at 8.

Plaintiff argues that “[n]o construction of this phrase is necessary because it only states the intended result.” Dkt. No. 315 at 14. Plaintiff also submits that this term is not indefinite because it is supported by the specification and “is easily understood to mean that by displaying the video image, the system facilitates a traveler in locating a particular street/road.” *Id.* (citing ’943 Patent at 3:40-44 & 5:23-27).

The parties present no further briefing on this term, and it is not addressed by the parties' Patent Rule 4-5(d) Joint Claim Chart. *See* Dkt. No. 355-1 at 25.

At the January 25, 2012 hearing, the Court provided the parties with its preliminary construction of this term as: "Defendants present no argument, so this term is not construed." Dkt. No. 357 at Ex. 1. All parties agreed that this term need not be construed. The Court therefore does not construe this term.

C. Claim 12 of the '943 Patent

(1) "a map containing street-road signs in the area of the location of the receiver"

Plaintiff proposes that no construction is necessary. Dkt. No. 315 at 14. Alternatively, Plaintiff proposes this term means "a map displayed on the display of the wireless receiving device that includes the names of streets/road in the area of the receiver." *Id.*

Defendants propose this term means "a map visually depicting traffic signs containing identification information for roads." Dkt. No. 310, Ex. A at 8.

At the January 25, 2012 hearing, the Court provided the parties with its preliminary construction of this term as "a map visually depicting traffic signs containing identification information for roads." Dkt. No. 357 at Ex. 1. Defendants were agreeable to this construction, but Plaintiff was not.

Plaintiff argues that contrary to Defendants' proposal, "[t]he context of the specification consistently illustrates that an actual street sign is not displayed on the receiver's display." Dkt. No. 315 at 15. Instead, "a map displayed on the receiver includes the names of streets/roads in the area of the receiver," which "may be shown in large scale and fine detail." *Id.*

Plaintiff probably meant for this claim to recite something like street “names” instead of street “signs”:

12. In an electronic navigation system, a mobile receiver accessible to a traveler and having a visual display screen for displaying a map containing *street-road signs* in the area of the location of the receiver, detector means associated with the receiver for detecting the proximity of various street-roads [*sic*, street-roads], and in response to said detection actuating said receiver to change its visual display of the *street-road signs*, thereby to inform the traveler of its location relative to said detected street-roads.

’943 Patent at Claim 12 (emphasis added). The claim recites “a map containing street-road signs,” however, and the written description refers to street “signs” as physical signs, not as street names. *See, e.g.*, ’943 Patent at 1:23-24 & 2:59-60. Accordingly, the Court should not attempt to rewrite the claim. *Energizer Holdings, Inc. v. I.T.C.*, 435 F.3d 1366, 1370 (Fed. Cir. 2006) (“[N]either the [International Trade] Commission nor the courts can rewrite claims to correct material errors”); *Chef Am. Inc. v. Lamb-Weston, Inc.*, 358 F.3d 1371, 1374 (Fed. Cir. 2004).

The Court therefore adopts Defendants’ proposal and construes **“a map containing street-road signs in the area of the location of the receiver”** to mean **“a map visually depicting traffic signs containing identification information for roads.”**

(2) “detector means associated with the receiver for detecting the proximity of various street-roads, and in response to said detection actuating said receiver to change its visual display of the street-road signs”

Plaintiff argues this term is not a means-plus-function term subject to 35 U.S.C. § 112, ¶ 6. Dkt. No. 315 at 15. Alternatively, Plaintiff proposes that the function is “detecting the proximity of various street-roads, and in response to said detection actuating said receiver to change its visual display of the street-road signs,” and that the “[c]orresponding structure includes at least a receiver, detector, or combination of i) an antenna, a detector transducer, a

GPS receiver circuit, or a mileage detector, and ii) an image selector processor, image selector circuit, or keypad.” *Id.*

Defendants propose that this is a means-plus-function term, that the function is “detecting the proximity of actual street-roads that have been reached, and then in response to the detection, activating an associated receiver to change the map on its visual display” and that the corresponding structure is “the ultrasonic generator 84, detector transducer 82, retroreflector 79, converter 81, and image selector circuit/processor 24 described in 5:37-59, 8:61-97, and Figs. 1, 3, 7 of the ’943 Patent.” Dkt. No. 322 at 16-18; Dkt. No. 355-1 at 9. Alternatively, Defendants propose that if this term is deemed not to be a means-plus-function term then this term should be construed to mean “a sensing device that produces an electrical signal in response to approaching an actual street.” Dkt. No. 355-1 at 10.

At the January 25, 2012 hearing, the Court provided the parties with its preliminary construction of this term as: “Consistent with construction of related term in Claim 1 of the ’943 Patent.” Dkt. No. 357 at Ex. 1. Thus Defendants were agreeable but Plaintiff was not.

(a) The Parties’ Arguments

Plaintiff argues that the claim recites sufficient structure to overcome the means-plus-function presumption. Dkt. No. 315 at 15-16. Alternatively, Plaintiff argues that Defendants’ proposed construction “include[s] additional, improper limitations.” *Id.* at 16.

Defendants and Plaintiff incorporate their arguments as to the “means that responds” term in Claim 1 of the ’943 Patent, above, including as to indefiniteness.

At the January 25, 2012 hearing, Plaintiff reiterated that this is not a means plus function term because a detector is a well-known structure. Alternatively, Plaintiff identified the same

corresponding structure as noted regarding Claim 1 of the '943 Patent, above. Plaintiff also noted that other disclosed structures, such as the mileage detector, do not detect the presence of an actual road but are nonetheless disclosed for detecting. '943 Patent at 6:15-19. Defendants' oral argument grouped this term with their argument on Claim 1 of the '943 Patent because Defendants argued that the related term in Claim 1 includes "detecting" as part of the function.

(b) Construction

As discussed above regarding Claim 1 of the '943 Patent, the Court finds this is a means-plus-function term, but the written description discloses sufficient corresponding structure to avoid indefiniteness. The function, as recited by the claim, is "detecting the proximity of various street-roads, and in response to said detection actuating said receiver to change its visual display of the street-road signs."

As to the corresponding structure, the written description discloses GPS but only as a source of information that can be "superimposed" or "display[ed]" on the video maps. '943 Patent at 3:53-57 & 9:8-13. Also, the "milleage [*sic*, mileage] detector, connected to the auto odometer," is disclosed as being "*settable by the traveler-driver* to provide a warning signal when a desired exit is being approached by the auto." *Id.* at 6:15-19. This mileage detector is thus set by the driver and signals when a predetermined distance has been traversed. It does not itself detect proximity to a street. The corresponding structure therefore includes either: (1) the ultrasonic generator 84, detector transducer 82, retroreflector 79, converter 81, and image selector circuit/processor 24; or (2) the video image signal transmitter and image selector circuit/processor 24.

(3) “thereby to inform the traveler of its location relative to said detected street-roads”

Plaintiff proposes that no construction is necessary. Dkt. No. 315 at 16. Alternatively, Plaintiff proposes this term means “the receiver is capable of informing the traveler of its location relative to the detected streets/roads.” *Id.*

Defendants originally submitted that this term is indefinite. Dkt. No. 310, Ex. A at 9.

Plaintiff argues that “[b]ecause this phrase only states an intended result, it is not a limitation.” Dkt. No. 315 at 17. Plaintiff also cites the ’943 Patent at 2:57-60, 5:23-31, and Figures 4 and 6 for support. *Id.*

The parties present no further briefing on this term, and it is not addressed by the parties’ Patent Rule 4-5(d) Joint Claim Chart. *See* Dkt. No. 355-1 at 25.

At the January 25, 2012 hearing, the Court provided the parties with its preliminary construction of this term as: “Defendants present no argument, so this term is not construed.” Dkt. No. 357 at Ex. 1. All parties agreed that this term need not be construed. The Court therefore does not construe this term.

D. Claim 13 of the ’943 Patent

(1) “In the navigation system of claim 12, said detection means actuating the receiver to eliminate the street-roads that have been detected, from the receiver display”

Plaintiff argues this term is not a means-plus-function term subject to 35 U.S.C. § 112, ¶ 6, and that the term should be construed to mean “[t]he receiver is actuated to edit the display of streets/roads by deleting a street/road or its name from the display.” Dkt. No. 315 at 17. Alternatively, Plaintiff proposes that the function is “actuating the receiver to eliminate

street-roads that have been detected, from the receiver display” and that the “[c]orresponding structure includes a receiver, image selector processor, image selector circuit, or keypad.” *Id.*

Defendants propose that this is a means-plus-function term, that the function is “actuating the receiver to change its visual display by eliminating the street-roads that have been detected as having been reached,” and that the corresponding structure is “the ultrasonic generator 84, detector transducer 82, retroreflector 79, converter 81, and image selector circuit/processor 24 described in 5:37-59, 8:61-97, and Figs. 1, 3, 7 of the ’943 Patent.” Dkt. No. 310, Ex. A at 15; Dkt. No. 322 at 16; Dkt. No. 355-1 at 10. Alternatively, Defendants propose that if this term is deemed not to be a means-plus-function term then this term should be construed to mean “a sensing device that produces an electrical signal in response to approaching an actual street.” Dkt. No. 355-1 at 11.

Plaintiff argues that Claim 13 recites sufficient structure to overcome the means-plus-function presumption. Dkt. No. 315 at 17. Alternatively, Plaintiff argues that Defendants’ proposal imports limitations, such as the streets/roads “having been reached,” and includes unnecessary structures, such as the ultrasonic generator and the retroreflector, which are not part of the receiver. *Id.* at 18.

At the January 25, 2012 hearing, the Court provided the parties with its preliminary construction of this term as: “Consistent with construction of related term in Claim 1 of the ’943 Patent.” Dkt. No. 357 at Ex. 1. Thus Defendants were agreeable but Plaintiff was not. The parties set forth the same arguments as to the related terms in Claims 1 and 12 of the ’943 Patent.

As discussed above regarding Claim 1 of the ’943 Patent, the Court finds this is a means-plus-function term, but the written description discloses sufficient corresponding structure to

avoid indefiniteness. The function, as recited by the claim, is “actuating the receiver to eliminate the street-roads that have been detected, from the receiver display.”

As to the corresponding structure, the written description discloses GPS but only as a source of information that can be “superimposed” or “display[ed]” on the video maps. ’943 Patent at 3:53-57 & 9:8-13. Also, the “milleage [*sic*, mileage] detector, connected to the auto odometer,” is disclosed as being “*settable by the traveler-driver* to provide a warning signal when a desired exit is being approached by the auto.” *Id.* at 6:15-19. This mileage detector is thus set by the driver and signals when a predetermined distance has been traversed. It does not itself detect proximity to a street. The corresponding structure therefore includes either: (1) the ultrasonic generator 84, detector transducer 82, retroreflector 79, converter 81, and image selector circuit/processor 24; or (2) the video image signal transmitter and image selector circuit/processor 24.

E. Claim 14 of the ’943 Patent

(1) “said detector means successively detecting the highway exits as they are reached to successively change the receiver visual display”

Plaintiff argues this term is not a means-plus-function term subject to 35 U.S.C. § 112, ¶ 6. Dkt. No. 315 at 18. Alternatively, Plaintiff proposes that the function is “successively detecting the highway exits as they are reached to successively change the receiver visual display” and that the “[c]orresponding structure includes at least a receiver or i) an antenna, detector transducer, a GPS receiver circuit, or a mileage detector, and ii) an image selector processor, image selector circuit or keypad.” *Id.*

Defendants propose that this is a means-plus-function term, that the function is “successively detecting the proximity of actual highway exits and, in response to the detection, actuating the receiver to change the map on its visual display,” and that the corresponding structure is “the ultrasonic generator 84, detector transducer 82, retroreflector 79, converter 81, and image selector circuit/processor 24 described in 5:37-59, 8:61-97, and Figs. 1, 3, 7 of the ’943 Patent.” Dkt. No. 310, Ex. A at 17; Dkt. No. 322 at 16; Dkt. No. 355-1 at 11.

Alternatively, Defendants propose that if this term is deemed not to be a means-plus-function term then this term should be construed to mean “a sensing device that produces an electrical signal in response to approaching an actual highway exit.” Dkt. No. 355-1 at 12.

At the January 25, 2012 hearing, the Court provided the parties with its preliminary construction of this term as: “Consistent with construction of related term in Claim 1 of the ’943 Patent.” Dkt. No. 357 at Ex. 1. Thus Defendants were agreeable but Plaintiff was not. The parties set forth the same arguments as to the related terms in Claims 1 and 12 of the ’943 Patent.

Plaintiff argues Claim 12 recites sufficient structure to overcome the means-plus-function presumption. Dkt. No. 315 at 18. Alternatively, Plaintiff argues that Defendants’ proposal improperly adds the additional requirements of “proximity,” “actual,” “in response to,” “actuating,” and “map,” and includes unnecessary structures, such as the ultrasonic generator and the retroreflector, which are not part of the receiver. *Id.* at 19.

Defendants and Plaintiff incorporate their arguments as to the “means that responds” term in Claim 1 of the ’943 Patent, above, including as to indefiniteness.

As discussed above regarding Claim 1 of the ’943 Patent, the Court finds this is a means-plus-function term, but the written description discloses sufficient corresponding structure to

avoid indefiniteness. The function, as recited by the claim, is “successively detecting the highway exits as they are reached to successively change the receiver visual display.”

As to the corresponding structure, the written description discloses GPS but only as a source of information that can be “superimposed” or “display[ed]” on the video maps. ’943 Patent at 3:53-57 & 9:8-13. Also, the “milleage [*sic*, mileage] detector, connected to the auto odometer,” is disclosed as being “*settable by the traveler-driver* to provide a warning signal when a desired exit is being approached by the auto.” *Id.* at 6:15-19. This mileage detector is thus set by the driver and signals when a predetermined distance has been traversed. It does not itself detect proximity to a street. The corresponding structure therefore includes either: (1) the ultrasonic generator 84, detector transducer 82, retroreflector 79, converter 81, and image selector circuit/processor 24; or (2) the video image signal transmitter and image selector circuit/processor 24.

(2) “thereby to show the location of the receiver with respect to the exits along said highway”

Plaintiff proposes that no construction is necessary. Dkt. No. 315 at 19. Alternatively, Plaintiff proposes this term means “the receiver is capable of showing its location with respect to the exits along the highway.” *Id.*

Defendants originally submitted that this term is indefinite. Dkt. No. 310, Ex. A at 9.

Plaintiff argues that “[t]his phrase states an intended result and does not need to be construed.” Dkt. No. 315 at 19. Alternatively, Plaintiff argues that “[t]he specification clearly and unambiguously discloses this result” such that the claim is not indefinite. *Id.* at 20 (citing ’943 Patent at 5:60-6:5 & 6:12-15).

The parties present no further briefing on this term, and it is not addressed by the parties' Patent Rule 4-5(d) Joint Claim Chart. *See* Dkt. No. 355-1 at 25.

At the January 25, 2012 hearing, the Court provided the parties with its preliminary construction of this term as: "Defendants present no argument, so this term is not construed." Dkt. No. 357 at Ex. 1. All parties agreed that this term need not be construed. The Court therefore does not construe this term.

F. Claim 15 of the '943 Patent

(1) "transmitting"

Plaintiff proposes this term means "[t]o send a signal from one location to another." Dkt. No. 315 at 20. Defendants propose this term means "sending." Dkt. No. 322 at 31.

At the January 25, 2012 hearing, the Court provided the parties with its preliminary construction of this term as "sending from one location to another." Dkt. No. 357 at Ex. 1. All parties agreed to this construction, so the Court hereby adopts its preliminary construction.

(2) "detecting and control means for said receiver, for detecting the proximity of various exits along said highway to change the visual display to indicate the exits that have been detected"

Plaintiff argues this term is not a means-plus-function term subject to 35 U.S.C. § 112, ¶ 6. Dkt. No. 315 at 21. Alternatively, Plaintiff proposes that the function is "detecting the proximity of various exits along said highway to change the visual display to indicate the exits that have been detected" and that the "[c]orresponding structure includes a receiver, or i) an antenna, detector transducer, a GPS receiver circuit, or a mileage detector, and ii) an image selector processor, image selector circuit, or keypad." *Id.*

Defendants propose that this is a means-plus-function term, that the function is “detecting the proximity of actual highway exits, and then in response to the detection, activating the receiver to change the highway image on its visual display to indicate that proximity to the actual exits has been detected,” and that the corresponding structure is “the ultrasonic generator 84, detector transducer 82, retroreflector 79, converter 81, and image selector circuit/processor 24 described in 5:37-59, 8:61-97, and Figs. 1, 3, 7 of the ’943 Patent.” Dkt. No. 310, Ex. A at 19; Dkt. No. 322 at 16; Dkt. No. 355-1 at 12. Alternatively, Defendants propose that if this term is deemed not to be a means-plus-function term then this term should be construed to mean “a sensing device that produces an electrical signal in response to approaching an actual highway exit.” Dkt. No. 355-1 at 12; Dkt. No. 355-1 at 13.

At the January 25, 2012 hearing, the Court provided the parties with its preliminary construction of this term as: “Consistent with construction of related term in Claim 1 of the ’943 Patent.” Dkt. No. 357 at Ex. 1. Thus Defendants were agreeable but Plaintiff was not. The parties set forth the same arguments as to the related terms in Claims 1 and 12 of the ’943 Patent.

Plaintiff argues that sufficient structure is recited to overcome the means-plus-function presumption. Dkt. No. 315 at 21. Plaintiff urges that “Defendants’ proposed function incorporates additional, improper limitations” and “includes structure that is not part of the detector, such as an ultrasonic generator.” *Id.*

Defendants and Plaintiff incorporate their arguments as to the “means that responds” term in Claim 1 of the ’943 Patent, above, including as to indefiniteness.

As discussed above regarding Claim 1 of the ’943 Patent, the Court finds this is a means-plus-function term, but the written description discloses sufficient corresponding structure to

avoid indefiniteness. The function, as recited by the claim, is “detecting the proximity of various exits along said highway to change the visual display to indicate the exits that have been detected.”

As to the corresponding structure, the written description discloses GPS but only as a source of information that can be “superimposed” or “display[ed]” on the video maps. ’943 Patent at 3:53-57 & 9:8-13. Also, the “milleage [*sic*, mileage] detector, connected to the auto odometer,” is disclosed as being “*settable by the traveler-driver* to provide a warning signal when a desired exit is being approached by the auto.” *Id.* at 6:15-19. This mileage detector is thus set by the driver and signals when a predetermined distance has been traversed. It does not itself detect proximity to a street. The corresponding structure therefore includes either: (1) the ultrasonic generator 84, detector transducer 82, retroreflector 79, converter 81, and image selector circuit/processor 24; or (2) the video image signal transmitter and image selector circuit/processor 24.

G. Claim 1 of the ’030 Patent

(1) “wireless transmitter [*sic*, transmitter] means generating a plurality of video maps covering different geographic zones of an extended area”

Plaintiff proposes that “[t]he function is ‘generating a plurality of video maps covering different geographic zones of an extended area.’ The structures performing this function are low power, short range transmitters that transmit data representative of a video map within limited cellular zones.” Dkt. No. 315 at 22.

Defendants propose that the function is “generating multiple video maps, each covering a different zone associated with a transmitter” and that the corresponding structure is “transmitter

10 as described in 2:18-26; 2:55-60; 5:7-27; 4:34-49; 5:61-6:21 and Figs. 1 and 2.” Dkt. No. 310, Ex. A at 21; Dkt. No. 322 at 29.

At the January 25, 2012 hearing, the Court provided the parties with its preliminary construction of this term as: “This term is not indefinite. The function is ‘generating a plurality of video maps covering different geographic zones of an extended area’ and the corresponding structure is the transmitter 10.” Dkt. No. 357 at Ex. 1. Plaintiff was agreeable to this construction, but Defendants were not.

(a) The Parties’ Arguments

Plaintiff argues that Defendants’ proposal “attempt[s] to impermissibly read in additional limitations and restrict a transmitter to only transmit a map of its zone.” Dkt. No. 315 at 22.

Defendants respond that Plaintiff is attempting to recapture embodiments that were disavowed during prosecution. Dkt. No. 322 at 27-28. Specifically, Defendants argue that it was well-known that navigation systems could receive map information transmitted from a base station and “[i]n response to a prior art rejection, Plaintiff amended his claims to limit the coverage to . . . requir[ing] the transmitters to *generate* maps/images corresponding to *their own zone*.” *Id.* at 27-28. Defendants conclude that the disputed term is a means-plus-function term that is limited to the “transmitter 10” that generates video maps corresponding to its zone. *Id.* Defendants emphasize that “[t]ransmitter 10 is the only disclosed structure in the specification that performs the function of generating a video map corresponding to the zone of that transmitter.” *Id.* at 29. Defendants also object to Plaintiff’s proposal as improperly inserting *functional* language—“transmit data representative of a video map”—into the corresponding

structure. Id. Finally, Defendants argue that “Plaintiff’s newly-minted ‘data representative’ phrase appears nowhere in the specification.” *Id.* at 30.

Defendants have also filed a motion for summary judgment arguing that the “transmitter means” terms in Claim 1-3, 8, and 14-15 of the ’030 Patent render those claims invalid as indefinite. Dkt. No. 324 at 12. Defendants submit that “[t]he inquiry here is not whether software structure to perform the functions is known in the art; instead, the question is whether the ’030 specification *actually describes* the software structure required.” *Id.* Defendants argue that “[t]he public is left to wonder how the maps are created, how the information is translated into a format that can be displayed on the user’s device, and how the maps are sent to the ‘traveler’ described in the ’030 patent.” *Id.* at 13.

Plaintiff responds that there is no attempt at “recapture” because “the claims of the ’030 patent issued in the same form that they were filed.” Dkt. No. 332 at 14. Plaintiff also argues that the claims provide no support for limiting the transmitter means to “generating a map of its own zone.” *Id.* Finally, as to the phrase “data representative” in Plaintiff’s proposed corresponding structure, Plaintiff cites the ’943 Patent at 9:13-31 for the disclosure that “radio frequencies” may be used and that “the video map images are preferably transmitted in digital form from the zone transmitters.” *Id.* at 15.

As to definiteness, Plaintiff responds that “transmitter” is a well-understood term that connotes sufficient structure to overcome the means-plus-function presumption. Dkt. No. 331 at 19. Alternatively, Plaintiff argues that the specification discloses sufficient corresponding structure, such as by disclosing that “[t]he ground based video map transmitters may be low power, short range units that transmit only within limited cellular zones within the city or other

community” and that “beams may be transmitted via an omnidirectional transmitting antenna or directionally oriented antenna.” *Id.* at 20 (citing ’983 Patent at 4:28-31 & 2:21-25). Plaintiff further argues that even if the “transmitter means” is “found to operate in connection with computers, or if they require internal software to properly function, they are not in themselves general purpose computers or microprocessors.” *Id.* at 20-21. Plaintiff concludes that no algorithm need be disclosed for these terms. *Id.* at 21.

Defendants reply that the disclosure relied upon by Plaintiff “does not describe how such structure can generate maps — nor could he,” because “[w]ithout special software, the transmitter cannot *generate* a map.” Dkt. No. 340 at 10.

In sur-reply, Plaintiff argues that Defendants’ indefiniteness argument is premised on Defendants’ incorrect construction of the term “generating” as requiring the transmitter to itself create the maps. Dkt. No. 345 at 3 & 10.

At the January 25, 2012 hearing, Defendants submitted that they agreed with the Court’s preliminary construction except as to the function. Defendants argued that, at a minimum, the transmitter means generates a map of its own zone.

(b) Construction

As discussed regarding the “zone” terms in Claim 1 of the ’943 Patent, above, the claim language does not limit a transmitter to transmitting a map corresponding to the transmitter’s “own” zone. In particular, the disclosure of wider area maps and city wide maps in the written description suggests that more than one map could be associated with a particular zone. ’943 Patent at 2:25-29 & 2:40-44. That is, a particular zone could be shown on both a local area map and a wide area map. On balance, neither the claim language nor the written description justify a

finding that the transmitter cannot transmit a local area map for a different zone. As to the prosecution history, for the reasons discussed as to the “generating” term in Claim 1 of the ’943 Patent, Defendants have failed to establish a “clear and unmistakable” disclaimer of claim scope. *Omega Eng’g*, 334 F.3d at 1325-26; accord *Lazare Kaplan*, 628 F.3d at 1370. The Court therefore construes the function as “generating a plurality of video maps covering different geographic zones of an extended area.”

For corresponding structure Plaintiff relies on the disclosure of a preferred embodiment having low power, short range transmitters that transmit data representative of a video map within limited cellular zones. The claims should not be limited to this preferred embodiment, particularly in light of the disclosure of another embodiment that employs “only one or a lesser number of transmitters”:

In an alternative embodiment of the invention shown in FIG. 9, only one or a lesser number of transmitters 56 may be used to cover an entire city, town, or other area, rather than a number of smaller transmitters 10 located in displaced zones of the city as discussed above.

’943 Patent at 4:50-54. Instead, the corresponding structure is simply the “transmitter 10.”

The recent case of *HTC Corp. v. IPCom GmbH & Co.* found that without disclosure of an algorithm, the “disclosure of a processor and transceiver alone was [in]sufficient to provide structure” for a means-plus function term involving a mobile device in a cellular network. No. 2011-1004, --- F.3d ----, 2012 WL 254804, at *9 (Fed. Cir. Jan. 30, 2012). The function at issue was “reactivat[ing] the link with the first base station if the handover is unsuccessful,” and the corresponding structure was “a processor connected to a transceiver and programmed to formulate and send messages to reactivate the link, if the handover is unsuccessful.” *Id.* at *7.

The function at issue in the case at bar, by contrast, is less complex such that the structure need not, for example, determine whether some action has been “unsuccessful.” *Id. HTC v. IPCOM* is therefore distinguishable.

On balance, Defendants have failed to prove indefiniteness by clear and convincing evidence. The “transmitter 10” is not a general purpose computer, so the specification need not disclose any software or algorithms. *See, e.g., Key Energy*, 2010 WL 2698507, at *13 (as to the corresponding structure of “(1) a modem in conjunction with a cellular phone, (2) a satellite hookup, (3) a wireless communication device, and (4) a data storage medium,” finding that “[b]ecause none of these corresponding structures is a general purpose computer or microprocessor, no disclosure of an algorithm is required.”).

The Court therefore finds that this term is not indefinite, that the function is “generating a plurality of video maps covering different geographic zones of an extended area,” and that the corresponding structure is the transmitter 10.

(2) “said transmitter means generating displaced wireless beams each directed to a different geographic zone corresponding to the video map of that zone”

Plaintiff proposes that “[t]he function is ‘generating displaced wireless beams each directed to a different geographic zone corresponding to the video map *of that zone*.’ The structures that perform this function are the low power, short range transmitters, each within a geographic zone, that transmit within that zone.” Dkt. No. 315 at 23 (emphasis added).

Defendants argue that this is a means-plus function term, that the function is “generating displaced wireless beams, each directed to a different geographic zone corresponding to the video map *transmitted by that beam*,” and that the corresponding structure is “transmitter 10 as

described in 2:18-26; 2:55-60; 5:7-27; 4:34-49; 5:61-6:21 and Figs. 1 and 2.” Dkt. No. 310, Ex. A at 22; Dkt. No. 322 at 29; Dkt. No. 355-1 at 15 (emphasis added).

At the January 25, 2012 hearing, the Court provided the parties with its preliminary construction of this term as: “The function is ‘generating displaced wireless beams each directed to a different geographic zone corresponding to the video map of that zone’ and the corresponding structure is the transmitter 10.” Dkt. No. 357 at Ex. 1. Plaintiff was agreeable to this construction, but Defendants were not.

(a) The Parties’ Arguments

Plaintiff argues that Defendants’ proposal improperly revises the function to refer to “by that beam” and also “fail[s] to recognize that the transmitters may have omnidirectional transmitting antenna [*sic*, antennas].” Dkt. No. 315 at 23.

Defendants and Plaintiff incorporate their arguments as to the “wireless transmitter means” term, discussed above as to Claim 1 of the ’030 Patent, including as to indefiniteness. *See* Dkt. No. 322 at 27-30; Dkt. No. 324 at 12-13; Dkt. No. 331 at 19-22.

(b) Construction

Claim 1 of the ’030 Patent recites (emphasis added):

1. In an electronic navigation system,

wireless transmitter means generating a plurality of video maps covering *different* geographic zones of an extended area,

said transmitter means generating displaced wireless beams each directed to a different geographic zone corresponding to the video map *of that zone*,

and a wireless receiver having a visual display accessible to a traveler proceeding through said area, and responsive to the

transmitted video map *corresponding to the zone of its location*, to display said video map on its screen.

For the same reasons discussed in the preceding subsection, the Court finds that this term is not indefinite. The recited function may be confusing to a finder of fact, however, and Defendants properly seek clarification that the map transmitted to each zone is the “map of that zone.” The Court therefore construes the function to be “generating displaced wireless beams each directed to a different geographic zone, wherein each beam is directed to a geographic zone corresponding to the video map transmitted by that beam.”

As discussed regarding Claim 1 of the ’943 Patent and Claim 1 of the ’030 Patent, above, for corresponding structure Plaintiff relies on the disclosure of a preferred embodiment having low power, short range transmitters that transmit data representative of a video map within limited cellular zones. The claims should not be limited to this preferred embodiment, particularly in light of the disclosure of another embodiment that employs “only one or a lesser number of transmitters.” ’943 Patent at 4:50-54.

The Court therefore finds that the corresponding structure is the transmitter 10.

H. Claim 2 of the ’030 Patent

(1) “said transmitter means comprising a plurality of displaced transmitters, each generating a different one of said video maps corresponding to a different geographic zone”

Plaintiff argues this term is not a means-plus-function term subject to 35 U.S.C. § 112, ¶ 6. Dkt. No. 315 at 23. Alternatively, Plaintiff proposes that the function is “generating a different one of said video maps corresponding to a different geographic zone” and that “[t]he

structures performing this function are the plurality of low power, short range transmitters that transmit data representative of a video map within that transmitter's limited cellular zone.” *Id.*

Defendants argue that this is a means-plus function term, that the function is “generating displaced wireless beams, each directed to a different geographic zone corresponding to the video map transmitted by that beam,” and that the corresponding structure is “transmitter 10 as described in 2:18-26; 2:55-60; 5:7-27; 4:34-49; 5:61-6:21 and Figs. 1 and 2.” Dkt. No. 310, Ex. A at 23; Dkt. No. 322 at 29.

At the January 25, 2012 hearing, the Court provided the parties with its preliminary construction of this term as: “This is a means-plus-function term. This term is not indefinite. The term is construed consistent with construction of related term in Claim 1 of the '030 Patent.” Dkt. No. 357 at Ex. 1. Neither party was agreeable to this construction.

(a) The Parties' Arguments

Plaintiff argues that the recited “plurality of displaced transmitters” are sufficient structure to overcome the means-plus-function presumption. Dkt. No. 315 at 23. Alternatively, Plaintiff argues that Defendants' proposal “is a complete re-write of the claimed function and should be rejected.” *Id.* at 24.

Defendants and Plaintiff incorporate their arguments as to the “wireless transmitter means” term, discussed as to Claim 1 of the '030 Patent, above, including as to indefiniteness. *See* Dkt. No. 322 at 27-30; Dkt. No. 324 at 12-13; Dkt. No. 331 at 19-22. Defendants also argue that because the term at issue has antecedent basis in Claim 1, as to which Plaintiff agrees that § 112, ¶ 6 applies, Plaintiff cannot credibly argue that the term in Claim 2 is not also subject to § 112, ¶ 6.

Plaintiff replies that “the additional structure recited in claim 2 and 3 of the ‘030 patent provide sufficient structure to carry out the recited function in claim 1 of the ‘030 patent,” namely a “plurality of displaced transmitters.” Dkt. No. 332 at 14.

At the January 25, 2012 hearing, Plaintiff and Defendants all submitted they were unable to find any case law on the issue of whether the means plus function presumption can be rebutted in a dependent claim even though the presumption has not been rebutted in the independent claim that contains the antecedent basis for the limitation at issue. Defendants nonetheless relied on the principle that a dependent claim cannot be broader than the claim from which it depends.

(b) Construction

For the same reasons discussed as to the related term in Claim 1 of the ‘030 Patent, the Court finds this is a means-plus-function term and that this term is not indefinite. Because this claim depends from Claim 1, the clarification of the function of Claim 1 need not be imported into this claim, as Defendants propose, so the function is “generating a different one of said video maps corresponding to a different geographic zone.” The corresponding structure is the transmitter 10.

I. Claim 3 of the ‘030 Patent

(1) “said transmitter [*sic*, transmitter] means comprising a plurality of short range transmitters disposed [*sic*] at separated locations along a roadway, and each transmitter generating a video map covering its geographic zone”

Plaintiff argues this term is not a means-plus-function term subject to 35 U.S.C. § 112, ¶ 6, and that no construction is necessary. Dkt. No. 315 at 24. Alternatively, Plaintiff proposes that the function is “generating a video map covering its geographic zone” and that “[t]he structures performing this function are a plurality of low power, short range transmitters

displaced at separated locations along a roadway that transmit data representative of a video map within that transmitter's limited cellular zone.” *Id.*

Defendants argue that this is a means-plus function term, that the function is “generating a video map corresponding to the zone of that transmitter,” and that the corresponding structure is “transmitter 10 as described in 2:18-26; 2:55-60; 5:7-27; 4:34-49; 5:61-6:21 and Figs. 1 and 2.” Dkt. No. 310, Ex. A at 24; Dkt. No. 322 at 29.

At the January 25, 2012 hearing, the Court provided the parties with its preliminary construction of this term as: “This is a means-plus-function term. This term is not indefinite. The term is construed consistent with construction of related term in Claim 1 of the '030 Patent.” Dkt. No. 357 at Ex. 1. Neither party was agreeable to this construction.

(a) The Parties' Arguments

Plaintiff argues that the claim recites sufficient structure to overcome the means-plus-function presumption, “specifically, a plurality of short range transmitters and their location (at separated locations along a roadway) that perform the stated function.” Dkt. No. 315 at 24. Alternatively, Plaintiff argues that Defendants' proposed function “again changes the function” and “defendants' recitation of structure also omits an omnidirectional antenna.” *Id.* at 25.

Defendants and Plaintiff incorporate their arguments as to the “wireless transmitter means” term, discussed as to Claim 1 of the '030 Patent, above, including as to indefiniteness. *See* Dkt. No. 322 at 27-30; Dkt. No. 324 at 12-13; Dkt. No. 331 at 19-22. Defendants also argue that because the term at issue has antecedent basis in Claim 1, as to which Plaintiff agrees that § 112, ¶ 6 applies, Plaintiff cannot credibly argue that the term in Claim 3 is not also subject to § 112, ¶ 6.

Plaintiff replies that “the additional structure recited in claim 2 and 3 of the ‘030 patent provide sufficient structure to carry out the recited function in claim 1 of the ‘030 patent,” namely a “a plurality of short range transmitters displaced at separated locations along a roadway.” Dkt. No. 332 at 14.

(b) Construction

For the same reasons discussed as to the related terms in Claims 1 and 2 of the ‘030 Patent, the Court finds this is a means-plus-function term, that the term is not indefinite, that the function is “generating a video map covering its geographic zone,” and that the corresponding structure is the transmitter 10.

J. Claim 8 of the ‘030 Patent.

(1) “a plurality of displaced zones within an extended geographic”

Plaintiff proposed this term means “[m]ore than one cellular zone in an extended geographic area.” Dkt. No. 315 at 25. Defendants proposed “plain and ordinary” meaning “in view of ‘displaced zones.’” Dkt. No. 310, Ex. A at 10.

At the January 25, 2012 hearing, the Court provided the parties with its preliminary construction of this term as “two or more zones within an extended geographic area.” Dkt. No. 357 at Ex. 1. All parties agreed to this construction, so the Court hereby adopts its preliminary construction.

(2) “wireless transmission [*sic*, transmission] means generating a plurality of beams each containing a video map covering a different one of said zones”

Plaintiff submits this is a means-plus-function term, and Plaintiff proposes: “The function is ‘generating a plurality of beams each containing a video map covering a different one of said

zones.’ The structures capable of performing this function are the plurality of low power, short-range transmitters that transmit data representative of a video map within limited cellular zones.” Dkt. No. 315 at 25.

Defendants argue that this is a means-plus function term, that the function is “generating multiple beams, each containing a video map covering a different zone associated with a transmitter,” and that the corresponding structure is “transmitter 10 as described in 2:18-26; 2:55-60; 5:7-27; 4:34-49; 5:61-6:21 and Figs. 1 and 2.” Dkt. No. 310, Ex. A at 25; Dkt. No. 322 at 29.

At the January 25, 2012 hearing, the Court provided the parties with its preliminary construction of this term as: “Consistent with construction of related term in Claim 1 of the ’030 Patent.” Dkt. No. 357 at Ex. 1. Thus Plaintiff was agreeable but Defendants were not.

Plaintiff argues that “Defendants’ construction of the function is erroneous because it improperly adds ‘associated with a transmitter’ as a function requirement” and “fails to properly include an omnidirectional transmitter.” Dkt. No. 315 at 25.

Defendants and Plaintiff incorporate their arguments as to the “wireless transmitter means” term, discussed as to Claim 1 of the ’030 Patent, above, including as to indefiniteness. *See* Dkt. No. 322 at 27-30; Dkt. No. 324 at 12-13; Dkt. No. 331 at 19-22.

The Court construes this means-plus-function term consistent with the construction of the related term in Claim 1 of the ’030 Patent. Specifically, the function is “generating a plurality of beams each containing a video map covering a different one of said zones,” and the corresponding structure is the transmitter 10.

Notably, whereas the function for the term in Claim 1 of the '030 Patent required clarification as to the “zone corresponding to the video map of that zone” limitation, Claim 8 includes no such limitation. Thus, no similar clarification is required.

(3) “selective control means for said receiver for enabling the traveler to manually select any desired one of said video maps for display on said receiver”

Plaintiff argued this term is not a means-plus-function term subject to 35 U.S.C. § 112, ¶ 6. Dkt. No. 315 at 26. Alternatively, Plaintiff proposed that the function is “enabling the traveler to manually select any desired one of said video maps for display on said receiver” and that “[t]he corresponding structure for this function includes an image selector processor, or image selector circuit, keypad or memory.” *Id.*

Defendants argued that this is a means-plus function term and that the function is “enabling the traveler to manually select a single video map from a group of video maps, each covering a different single zone associated with a transmitter, for display of the selected map on a receiver.” Dkt. No. 355-1 at 21. Defendants proposed that the corresponding structure is “image selector 24; video screen 19; image selection keypad 25 as described in col. 4, 17-27; col. 9:5-7; Fig. 3.” *Id.*¹

At the January 25, 2012 hearing, the Court provided the parties with its preliminary construction of this term as: “This a means-plus-function term. This term is not indefinite. The function is ‘enabling the traveler to manually select any desired one of said video maps for

¹ Defendants originally proposed that the function is “enabling the traveler to manually select any desired one of said video maps for display on said receiver.” Dkt. No. 322 at 24. Defendants also originally proposed that the corresponding structure is as set forth in the '030 Patent at 4:17-27. *Id.* at 25. Defendants’ new proposal appears in the parties’ Patent Rule 4-5(d) Joint Claim Chart. Dkt. No. 355-1 at 21.

display on said receiver' and the corresponding structure is image selector 24, buffer memory 21, video screen 19, and image selection keypad 25.” Dkt. No. 357 at Ex. 1. All parties agreed to this construction, so the Court hereby adopts its preliminary construction.

(4) “whereby a traveler proceeding within said geographic area can independently determine the zone of his location and can select that one of the video maps for display showing said zone”

Plaintiff proposes that this term means “[t]he receiver is capable of showing the traveler his current location and selecting a map of that zone.” Dkt. No. 315 at 26.

Defendants originally submitted that this term is indefinite. Dkt. No. 310, Ex. A at 10.

At the January 25, 2012 hearing, the Court provided the parties with its preliminary construction of this term as “the receiver is capable of showing the traveler his current location and selecting a map of that zone.” Dkt. No. 357 at Ex. 1. Plaintiff was agreeable to this construction, but Defendants were not.

Plaintiff argues that “[t]his phrase states an intended result and does not need to be construed.” Dkt. No. 315 at 26. Plaintiff also argues that this term is not indefinite because “it is easily understood to mean that the receiver is capable of showing the traveler its current location and selecting the map of that zone.” *Id.* at 27.

The parties present no further briefing on the construction of this term, even though it is mentioned in Defendants’ briefing as to the “zone” terms. *See* Dkt. No. 322 at 11. This term is also not addressed by the parties’ Patent Rule 4-5(d) Joint Claim Chart. *See* Dkt. No. 355-1 at 3, 6 & 27. Defendants argued at the January 25, 2012 hearing that this “whereby” clause is merely a statement of purpose and is not a limitation.

On balance, the Court adopts Plaintiff's proposal and construes **"whereby a traveler proceeding within said geographic area can independently determine the zone of his location and can select that one of the video maps for display showing said zone"** to mean **"the receiver is capable of showing the traveler his current location and selecting a map of that zone."**

K. Claim 14 of the '030 Patent

(1) "wireless transmitter [*sic*, transmitter] means for generating a plurality of video maps each covering a different zone of an extended geographic area"

Plaintiff submits this is a means-plus-function term and that "[t]he function is 'generating a plurality of video maps each covering a different zone of an extended geographic area.' The structures performing this function are low power, short range transmitters that transmit data representative of a video map within limited cellular zones." Dkt. No. 315 at 27.

Defendants argue that this is a means-plus function term, that the function is "generating multiple video maps, each covering a different single zone associated with a transmitter," and that the corresponding structure is "transmitter 10 as described in 2:18-26; 2:55-60; 5:7-27; 4:34-49; 5:61-6:21 and Figs. 1 and 2." Dkt. No. 310, Ex. A at 28; Dkt. No. 322 at 29.

At the January 25, 2012 hearing, the Court provided the parties with its preliminary construction of this term as: "Consistent with construction of related term in Claim 1 of the '030 Patent." Dkt. No. 357 at Ex. 1. Thus Plaintiff was agreeable but Defendants were not.

(a) The Parties' Arguments

Plaintiff argues that "Defendants' construction is erroneous because it changes the function to include each covering a different 'single' zone and 'associated with a transmitter.'"

Dkt. No. 315 at 27. Plaintiff also argues that Defendants’ proposal “omits structure disclosed in the specification, such as [a] transmitter with an omnidirectional antenna.” *Id.* (citing ’943 Patent at 2:22-23).

Defendants and Plaintiff incorporate their arguments as to the “wireless transmitter means” term, discussed as to Claim 1 of the ’030 Patent, above, including as to indefiniteness. *See* Dkt. No. 322 at 27-30; Dkt. No. 324 at 12-13; Dkt. No. 331 at 19-22.

(b) Construction

The Court construes this term consistent with the construction of the related term in Claim 1 of the ’030 Patent. Specifically, this term is not indefinite, the function is “generating a plurality of video maps each covering a different zone of an extended geographic area,” and the corresponding structure is the transmitter 10.

Notably, whereas the function for the term in Claim 1 of the ’030 Patent required clarification as to the “zone corresponding to the video map of that zone” limitation, Claim 14 includes no such limitation. Thus, no similar clarification is required.

(2) “said receiver having a visual display and having a manually operated selection means for downloading any of the stored video maps to the receiver visual display”

Plaintiff argues this term is not a means-plus-function term subject to 35 U.S.C. § 112, ¶ 6. Dkt. No. 315 at 27. Alternatively, Plaintiff proposes that the function is “downloading any of the stored video maps to the receiver visual display” and that the “[c]orresponding structure is the receiver, image selection processor, or image selection circuit, memory or keypad.” *Id.*

Defendants argue that this is a means-plus-function term and that the function is “manually downloading any stored video maps to a receiver visual display.” Dkt. No. 322 at 26.

Defendants propose that the corresponding structure is “an image selector 24, a video screen 19, and an image selection keypad 25” as described in the ’030 Patent at 4:17-27, 9:5-7, and Figure 3. *Id.*; Dkt. No. 355-1 at 22.

At the January 25, 2012 hearing, the Court provided the parties with its preliminary construction of this term as: “Consistent with construction of related term in Claim 8 of the ’030 Patent.” Dkt. No. 357 at Ex. 1. All parties agreed to this construction, so the Court hereby finds: This a means-plus-function term. This term is not indefinite. The function is “downloading any of the stored video maps to the receiver visual display,” and the corresponding structure is image selector 24, buffer memory 21, video screen 19, and image selection keypad 25.

(3) “thereby enabling a user to obtain a desired video map for display”

Plaintiff proposes that no construction is necessary. Dkt. No. 315 at 28. Defendants originally submitted that this term is indefinite. Dkt. No. 310, Ex. A at 11.

Plaintiff argues that “[t]his phrase states an intended result and does not need to be construed.” Dkt. No. 315 at 28. The parties present no further briefing on this term, and it is not addressed by the parties’ Patent Rule 4-5(d) Joint Claim Chart. *See* Dkt. No. 355-1 at 3 & 28.

At the January 25, 2012 hearing, the Court provided the parties with its preliminary construction of this terms as: “Defendants present no argument, so this term is not construed.” Dkt. No. 357 at Ex. 1. All parties agreed that this term need not be construed. The Court therefore does not construe this term.

L. Claim 15 of the '030 Patent

(1) “said transmitter [*sic*, transmitter] means transmitting [*sic*, transmitting] the plurality of video maps throughout the geographic area”

Plaintiff submits this is a means-plus-function term and that “[t]he function is transmitting the plurality of video maps throughout the geographic area. The structures performing this function are low power, short range transmitters that transmit data representative of a video map.” Dkt. No. 315 at 28.

Defendants propose that the function is “sending multiple video maps each covering a different single zone associated with a transmitter, throughout the geographic area,” and that the corresponding structure is the “transmitter 10 as described in 2:18-26; 2:55-60; 5:7-27; 4:34-49; 5:61-6:21 and Figs. 1, 2.” Dkt. No. 322 at 30.

At the January 25, 2012 hearing, the Court provided the parties with its preliminary construction of this term as: “Consistent with construction of related term in Claim 1 of the '030 Patent.” Dkt. No. 357 at Ex. 1. Thus Plaintiff was agreeable but Defendants were not.

(a) The Parties' Arguments

Plaintiff submits that this term “further describes the wireless transmitter of claim 14.” Dkt. No. 315 at 28. Plaintiff also submits “Defendants again urge the Court to improperly read in numerous additional requirements into the function, such as ‘each covering a different single zone associated with a transmitter.’” *Id.* at 28-29. Plaintiff argues that “[t]he effect of defendants’ construction is to improperly require that a transmitter be capable of only transmitting a map covering the zone of that transmitter,” which Plaintiff argues would exclude a

preferred embodiment. *Id.* at 29. Plaintiff further argues that “Defendants’ structure also fails to include an omnidirectional transmitter.” *Id.* (citing ’943 Patent at 2:20-23).

Defendants and Plaintiff incorporate their arguments as to the “wireless transmitter means” term, discussed as to Claim 1 of the ’030 Patent, above, including as to indefiniteness. *See* Dkt. No. 322 at 27-30; Dkt. No. 324 at 12-13; Dkt. No. 331 at 19-22. Defendants submit that their “proposed construction of the function merely makes clear the transmitter transmits each map corresponding to *its own zone*.” *Id.* at 30-31.

(b) Construction

The Court construes this term consistent with the construction of the related term in Claim 1 of the ’030 Patent. Specifically, this term is not indefinite, the function is “transmitting the plurality of video maps throughout the geographic area,” and the corresponding structure is the transmitter 10.

Notably, whereas the function for the term in Claim 1 of the ’030 Patent required clarification as to the “zone corresponding to the video map of that zone” limitation, Claim 15 includes no such limitation. Thus, no similar clarification is required.

M. Claim 21 of the ’030 Patent

(1) “subdividing an extended geographic region into a series of contiguous [*sic*, contiguous] cellular zones”

Plaintiff proposes that this term means “a geographic region divided into a series of small neighboring areas containing at least one cellular transmitter within each small area that transmits low power, short range signals to wireless receivers located within that area.” Dkt. No. 315 at 29.

Defendants argue that no construction is necessary apart from the constituent term “cellular zones.” Dkt. No. 310, Ex. A at 11.

At the January 25, 2012 hearing, the Court provided the parties with its preliminary construction of this term as: “No construction apart from construction of constituent term ‘cellular zones.’” Dkt. No. 357 at Ex. 1. Defendants were agreeable to this construction, but Plaintiff was not.

Plaintiff argues that “Defendants’ reference to their construction of ‘cellular zone’ is an attempt to improperly read in their ‘predefined’ limitation . . . and should be rejected.” Dkt. No. 315 at 29. Plaintiff cites the disclosure of “low power, short range units that transmit only within limited cellular zones.” ’943 Patent at 4:28-31.

On balance, this term requires no construction apart from the construction of the constituent term “cellular zones,” which is addressed as to Claim 1 of the ’943 Patent, above.

(2) “control means for said receiver for erasing any previously displayed video map when the receiver enters into a different cellular zone”

Plaintiff argued this term is not a means-plus-function term subject to 35 U.S.C. § 112, ¶ 6. Dkt. No. 315 at 29. Alternatively, Plaintiff proposed that the function is “erasing any previously displayed video map when the receiver enters into a different cellular zone” and that “[t]he structure that performs this function is a keypad, image selection processor or circuit, or a signal detector circuit.” *Id.* at 29-30.

Defendants argued that this is a means-plus-function term, and Defendants agreed with Plaintiff’s proposal for the function. Dkt. No. 322 at 27. Defendants proposed that the corresponding structure is “ultrasonic generator 84, detector transducer 82, retroreflector 79,

converter 81, and image selector circuit 24” as described in the ’030 Patent at 5:37-59, 8:61-9:7, and Figures 1, 3, and 7. *Id.*; Dkt. No. 355-1 at 23.

At the January 25, 2012 hearing, the Court provided the parties with its preliminary construction of this term as: “Consistent with construction of related term in Claim 8 of the ’030 Patent.” Dkt. No. 357 at Ex. 1. All parties agreed to this construction, so the Court hereby construes this term to mean: This a means-plus-function term. This term is not indefinite. The function is “erasing any previously displayed video map when the receiver enters into a different cellular zone,” and the corresponding structure is image selector 24, buffer memory 21, video screen 19, and image selection keypad 25.

IV. CONCLUSION

The Court hereby **ORDERS** the disputed claim terms construed as set forth above.

Defendants’ Motion for Partial Summary Judgment of Invalidity Based on Indefiniteness of Certain Claims (Dkt. No. 324) is hereby **DENIED**.

IT IS SO ORDERED.

SIGNED this 3rd day of February, 2012.

A handwritten signature in black ink, appearing to read "David Folsom", written over a horizontal line.

DAVID FOLSOM
UNITED STATES DISTRICT JUDGE